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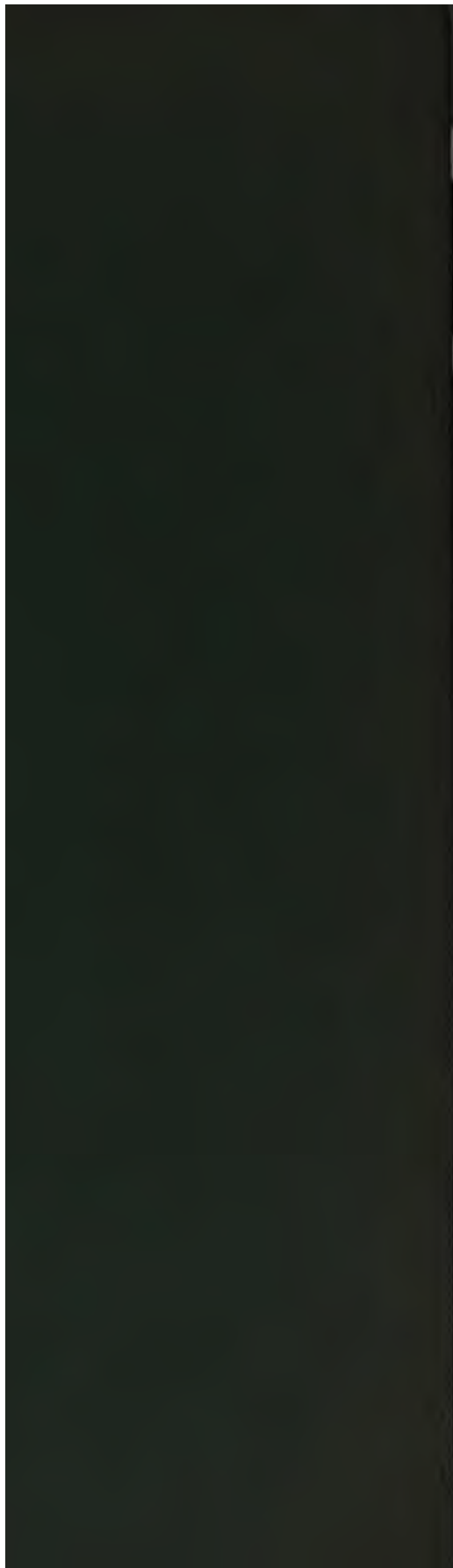
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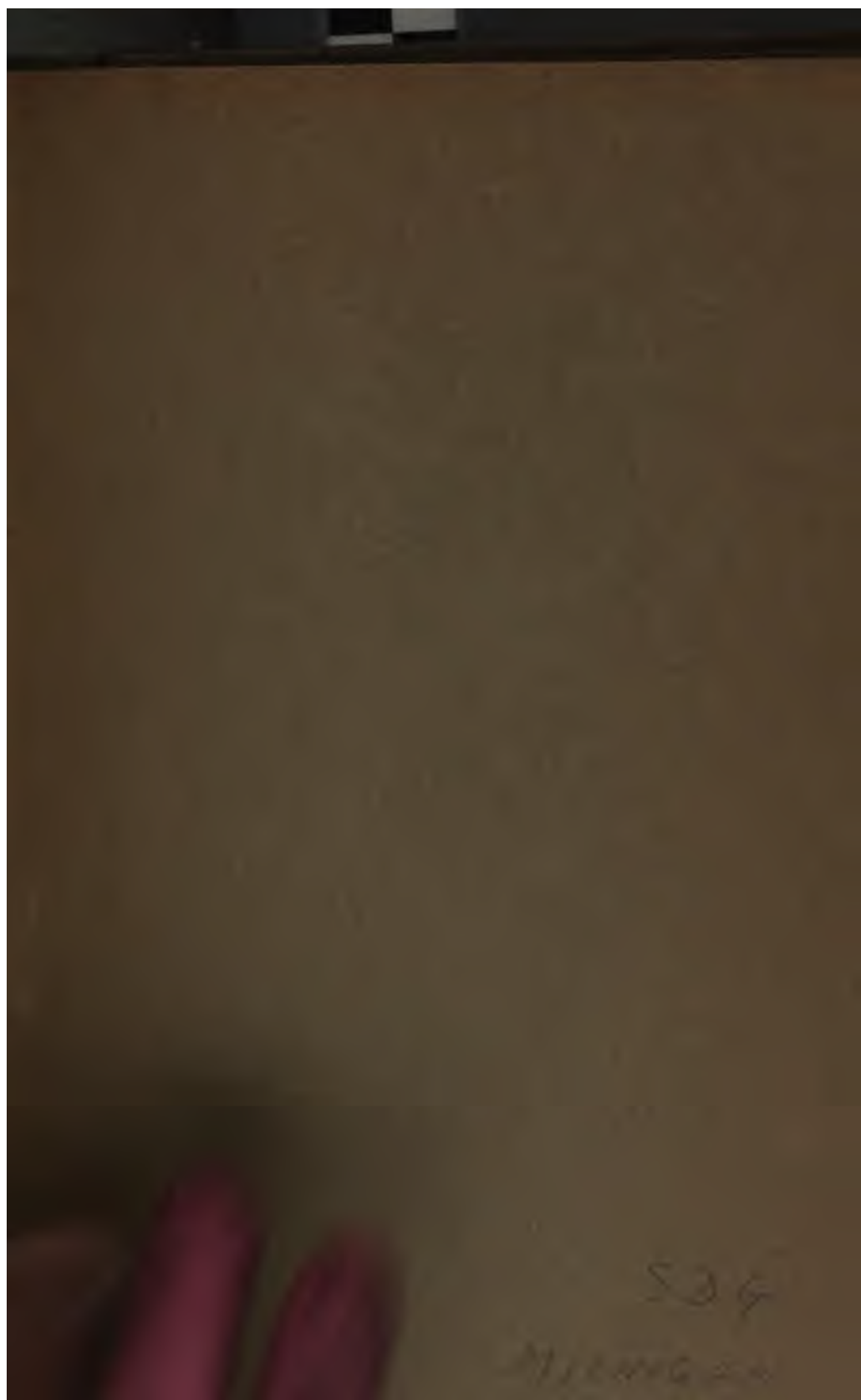
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FIFTEENTH ANNUAL REPORT

RELATING TO THE REGISTRY AND RETURN OF

BIRTHS, MARRIAGES, AND DEATHS,

IN

MICHIGAN FOR THE YEAR 1884.

BY THE

SECRETARY OF STATE

OF THE

STATE OF MICHIGAN.



BY AUTHORITY.

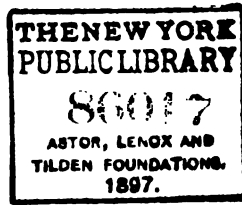
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B-1881.





MICHIGAN  
DEPARTMENT OF STATE, }  
OFFICE OF THE SECRETARY,  
LANSING, April 18, 1884.

HON. JOSIAH W. BEGOLE, *Governor of Michigan*:

SIR,—I have the honor to submit herewith the Fifteenth Annual Report relating to the Registration and Return of Births, Marriages, and Deaths in Michigan during the year ending December 31, 1881.

With the accompanying tables and exhibits appear such introductory remarks and computations as seem suitable to assist the reader in the study of them, and as aids in reaching correct conclusions.

The subjects presented for consideration in the present volume are as usual those concerning the deepest social interests of our people, namely, that of the natural increase of our population, the social element of marriage, and the subject of mortality. An effort has been made to collect and classify, in the most perfect manner, all the evidence obtainable relating to these subjects. This is done in order to facilitate their study, and the examination of the forces and combination of forces and their laws, both physical and social, that are continually influencing the particulars of which they treat. It is to the work of unfolding these laws and of illustrating these principles that the returns of births, marriages, and deaths of a people are of great assistance. Without these aids, problems concerning the growth and decay of the race would lack essential conditions for their solution. Every year adds to the general fund of information in regard to these most important subjects.

In dealing with the abstract numbers of births, marriage, and deaths it is highly important to take into consideration the population in which those events occurred. It is necessary to know something concerning the living people in any State in order to arrive at correct comparisons of the vital statistics of that State. This is done as far as circumstances would permit in the present work.

The natural increase of population in Michigan, or excess of births over deaths, during the year 1881, was 15,511. The number of marriages solemnized in Michigan in 1881 was 14,847, an increase of about 700 over that for the preceding year. About 60 per cent. of the marriages were parties were born in the United States, and where both parties -born it was about 18 per cent. A considerable proportion of the

marriages were among parties where one was native-born and the other foreign-born.

There were 19,238 deaths returned to this Department for the year 1881. Of the fifteen principal causes of deaths, shown on page 247, diphtheria stands first in order, 2,063 deaths being returned from this disease alone, a larger number than ever before reported in Michigan. The same number of deaths from diphtheria occurred among both males and females.

On page 160 it will be seen that there is a decided reduction in the mortality-rate in each of the five general classes as compared with the average for ten years ending with 1880, with the single exception of the zymotic class, which shows an increase of eight per cent. The most important decline, as compared with the average for the ten years, is in the constitutional class, the ratio in 1881 being 14.21, while for the average of ten years it is 17.22 per cent. of the deaths from all causes. A diminution in almost the same degree marked the number and per cent. of mortality from diseases called local. Deaths by violence were nearly the same, in number and in proportion, in 1881 as in the average. The various diseases which compose each class may be seen in table XVI., page 164.

This volume of vital statistics adds one more to the list already published in this State, and is presented to the people of Michigan with the sincere wish that it may prove of interest and value.

Respectfully submitted,

A large, elegant handwritten signature in cursive script, reading "Henry A. Conrad". The signature is written in dark ink and features a long, sweeping underline that extends across the width of the signature.

*Secretary of State.*

# BIRTHS, MARRIAGES, AND DEATHS,

## IN MICHIGAN,

### DURING THE YEAR 1881.

---

The accompanying tables and exhibits constitute the Vital Statistics of Michigan for the year 1881, and the Fifteenth Annual Report of the Secretary of State on this subject.

It appears from the first exhibit, where a concise statement is made of the registration for the year 1881, that there were returned to the State Department 34,749 births, 14,847 marriages and 19,238 deaths. An opportunity is also afforded for comparison with the previous years in each of these divisions of births, marriages, and deaths. It is seen that the births are 574 less than the number returned for the year 1880, 627 more than the number returned for the year 1879, etc. The average number of births for the ten years 1872-1881 is 33,270.

The total number of marriages returned in 1881 was 14,847, which is 187 more than is returned for the year 1880, and is the largest number ever reported for a single year. The average annual number of marriages for the ten years 1872-1881 is 12,671, which is 2,176 less than the number returned for the year 1881.

The number of deaths returned for the year 1881 is 19,238, which is greatly in excess of that for any previous year. As compared with those recorded in 1880, this number shows an increase of 3,136, and it is 6,176 more than the average annual number for the previous ten years (1871-1880). The cause of this large increase in the number of deaths is greatly the result of the fatal epidemics of diphtheria, scarlet fever, and other diseases. From diphtheria alone there were returned 2,063 deaths, which is 521 more than the number recorded for 1880.

We see, then, that the number of births returned for 1881 is some less than those recorded for 1880, while the marriages and deaths show a marked increase. The natural increase of population, or excess of births over deaths, is 15,511, or 3,710 less than in 1880. When the births and deaths are corrected for omissions in the enumeration the excess of births over deaths is 22,413, which is undoubtedly nearer the true number than the other, as the average annual excess of births over deaths, as returned for the previous ten

VITAL STATISTICS OF MICHIGAN, 1881.

years, 1871-1880, is 19,332, which shows that the year 1881 is far below an average one as regards the natural increase of population.

**EXHIBIT A.—Births, Marriages, and Deaths Returned as having occurred in Michigan during each of the Years 1876 to 1881, inclusive, including those in unknown month, as Returned, and as Corrected for Omissions in the Enumeration.**

		1876.	1877.	1878.	1879.	1880.	1881.
As Returned.	Marriages.....	11,863	11,844	12,829	13,816	14,660	14,871
	Births.....	34,235	33,305	35,162	34,122	35,323	34,710
	Deaths.....	12,576	12,919	12,706	14,407	16,102	19,211
	Excess of Births over Deaths.....	21,659	20,386	22,456	19,715	19,221	15,500
As Corrected for Omissions.	Births.....	45,172	50,203	52,145	50,100	50,643	49,871
	Deaths.....	18,389	18,341	18,866	20,563	26,256	27,311
	Excess of Births over Deaths.....	26,783	31,862	33,279	29,537	24,387	22,560

\* Corrected, for additional returns, up to Feb. 8, 1883.

In the following exhibit are presented many important relations between the births, marriages, and deaths to the population of the State. Any study of the abstract numbers of births, marriages, and deaths, would be very unsatisfactory, which did not include some statistics of the population where those events took place. The census returns of 1880 are used in making the calculations for the year 1881, and the increase in the population must be taken into consideration when the observations are compared with those of the previous year. In making this allowance it should be borne in mind that the computations are made on the same basis of population. The average annual rate of increase in the population between the years 1870 and 1880 was 3.29 per cent. This is undoubtedly a near approach to the rate for the present year, and this being true, the estimated population of Michigan for the year 1881 is 1,690,809, an increase of 53,872 over the actual population in 1880.



EXHIBIT B.—*Statements concerning Births, Marriages, and Deaths in Michigan during the Years 1876-1881, inclusive.*

	1876. <sup>a</sup>	1877. <sup>a</sup>	1878. <sup>a</sup>	1879. <sup>a</sup>	1880. <sup>b</sup>	1881. <sup>b</sup>
Inhabitants represented by returns of marriages to one marriage.....	112.07	112.48	103.99	96.54	111.66	110.25
In population represented by marriages, males to one marriage.....	58.56	58.78	54.34	50.45	58.82	58.08
In population represented by marriages, females to one marriage.....	53.51	53.70	49.72	46.09	52.83	52.17
Inhabitants represented by births to each child returned.....	38.56	39.82	37.78	38.76	46.07	46.90
Inhabitants, males to each male child returned.....	38.86	40.33	38.09	38.90	46.61	47.82
Inhabitants, females to each female child returned.....	38.38	39.42	37.60	38.71	45.65	46.08
Inhabitants represented by deaths to one death...	104.74	102.28	103.32	91.49	100.86	84.31
Inhabitants, males to one death of male.....	101.84	101.08	103.83	91.53	98.86	83.18
Inhabitants, females to one death of female.....	109.21	104.51	103.64	91.95	103.84	86.23
Deaths, males to 100 females.....	117.27	113.03	109.04	109.84	116.67	115.19
Births, males to 100 females.....	108.05	106.94	108.02	108.83	108.79	107.13
Total population of State, males to 100 females....	109.47	109.47	109.47	109.47	111.33	111.33
Births to one death.....	2.72	2.58	2.75	2.37	2.19	1.81
Births, males to one death of male.....	2.63	2.52	2.75	2.36	2.13	1.75
Births, females to one death of female.....	2.85	2.67	2.77	2.38	2.28	1.88
Children born of which the sex was unknown or not stated.....	56.00	59.00	67.00	48.00	62.00	61.00
Decedents of which the sex was unknown or not stated.....	59.00	52.00	52.00	37.00	47.00	65.00
Natural daily increase of population, as per births and deaths returned.....	59.34	56.10	61.35	54.01	52.52	42.49
Natural daily increase of population, when returns are corrected as in 4th line of exhibit A, page 6, and exhibit C, page 110.....	73.38	87.29	91.17	80.95	66.63	61.41

<sup>a</sup> In computing statements for this column, the inhabitants in 1874 were used.

<sup>b</sup> In computing statements for this column, the inhabitants, June 1, 1880, were used.

\* Marriages, corrected for additional returns up to Feb. 8, 1883.

Table I. shows the number of births, marriages, and deaths in Michigan for certain specified periods of time during the year 1881. It is seen that the daily average of births is 95.20; the daily average of marriages is 40.68; and the daily average of mortality is 52.71, while the daily natural increase of population, or excess of births over deaths, is 42.49.

It is also seen from exhibit B that one child was born to every 46.90 persons, that one marriage was solemnized to every 110.25 persons, and that one death occurred to every 84.31 persons.

The birth-rate then is 21.28 to every 1,000 of population, the marriage-rate 9.09, and the death-rate 11.90 to every 1,000 of population. The above figures would be modified somewhat if the estimated inhabitants for 1881 were used instead of the actual population of the State in 1880.

TABLE I.—*The number of Marriages, Births, Deaths, and Excess of Births over Deaths in the State of Michigan during the Year 1881, and the Average Number and Excess during Specified Periods of Time within the Year as Returned, and the same for Births and Deaths as Corrected for Omissions in the Enumeration.*

PERIODS OF TIME,—1881.		Marriages, 1881.	Births, 1881.	Deaths, 1881.	Excess of Births over Deaths.
As Returned.	Year, 1881 <sup>a</sup> .....	14,847.00	34,749.00	19,238.00	15,511.00
	Quarter.....	3,711.75	8,687.25	4,809.50	3,877.75
	Month.....	1,237.25	2,895.75	1,603.17	1,292.58
	Week.....	285.55	668.25	369.96	298.29
	Day.....	40.68	95.20	52.71	42.49
Births and Deaths as Corrected. <sup>b</sup>	Year, 1881 <sup>b</sup> .....		49,800.00	27,587.00	22,213.00
	Quarter.....		12,450.00	6,846.75	5,603.25
	Month.....		4,150.00	2,282.25	1,867.75
	Week.....		957.69	526.67	431.02
	Day.....		136.44	75.03	61.41

<sup>a</sup> Unknown month included.

<sup>b</sup> Corrected as enumerated in months of occurrence.

Exhibit 1 gives, by months, the number of births, deaths and excess of births over deaths for each of the years 1876-1881. As will be seen, the average excess for the nine years is much larger than the excess for the year 1881. In the average for nine years the largest excess appears for the month of December, while in the year 1881 the largest excess is in the month of March.



BIRTHS, MARRIAGES, AND DEATHS.

xiii

EXHIBIT 1.—By Months, the Births, Deaths, and Excess of Births over Deaths, according to the Returns, in Michigan during each of the Years 1876 to 1881, inclusive.

	TOTAL. <sup>a</sup>	MONTHS.											
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1876.....	34,131	2,283	2,322	2,714	2,730	2,870	2,739	3,014	3,124	3,110	3,039	2,921	3,205
{ Births.....													
{ Deaths.....													
{ Excess of Births.....													
1877.....	21,586	1,498	1,522	1,769	1,752	1,900	1,884	1,935	1,617	1,687	1,908	1,932	2,052
{ Births.....													
{ Deaths.....													
{ Excess of Births.....													
1878.....	33,324	2,212	2,246	2,690	2,655	2,683	2,657	2,869	3,227	3,048	3,015	2,847	3,145
{ Births.....													
{ Deaths.....													
{ Excess of Births.....													
1879.....	12,863	766	843	990	978	976	875	1,040	1,559	1,400	1,321	1,060	1,155
{ Births.....													
{ Deaths.....													
{ Excess of Births.....													
1880.....	20,461	1,446	1,403	1,700	1,677	1,707	1,782	1,859	1,668	1,648	1,704	1,787	1,900
{ Births.....													
{ Deaths.....													
{ Excess of Births.....													
1881.....	35,130	2,301	2,414	2,836	2,937	2,805	2,797	2,835	3,205	3,290	3,296	3,061	3,423
{ Births.....													
{ Deaths.....													
{ Excess of Births.....													
1882.....	12,742	730	789	930	1,029	923	870	1,017	1,371	1,343	1,100	1,181	1,369
{ Births.....													
{ Deaths.....													
{ Excess of Births.....													
1883.....	22,388	1,471	1,625	1,906	1,908	1,882	1,927	1,818	1,924	1,917	2,076	1,880	2,054
{ Births.....													
{ Deaths.....													
{ Excess of Births.....													
1884.....	34,002	2,429	2,331	2,758	2,706	2,842	2,626	3,018	3,166	3,149	3,036	2,766	3,233
{ Births.....													
{ Deaths.....													
{ Excess of Births.....													
1885.....	14,366	903	992	1,114	1,174	1,083	902	1,183	1,537	1,403	1,286	1,268	1,521
{ Births.....													
{ Deaths.....													
{ Excess of Births.....													
1886.....	19,726	1,526	1,339	1,644	1,532	1,759	1,724	1,895	1,661	1,746	1,750	1,498	1,712
{ Births.....													
{ Deaths.....													
{ Excess of Births.....													
1887.....	35,323	2,355	2,513	2,850	2,824	2,880	2,772	3,011	3,285	3,278	3,173	3,068	3,278
{ Births.....													
{ Deaths.....													
{ Excess of Births.....													
1888.....	16,102	860	1,002	1,149	1,280	1,166	1,036	1,597	1,780	1,676	1,471	1,486	1,617
{ Births.....													
{ Deaths.....													
{ Excess of Births.....													
1889.....	19,221	1,495	1,511	1,701	1,535	1,714	1,736	1,484	1,505	1,602	1,702	1,582	1,661
{ Births.....													
{ Deaths.....													
{ Excess of Births.....													
1890.....	34,719	2,303	2,432	2,835	2,805	2,887	2,712	3,027	3,313	3,204	3,078	2,834	3,179
{ Births.....													
{ Deaths.....													
{ Excess of Births.....													
1891.....	19,172	1,065	1,078	1,315	1,427	1,407	1,276	1,701	2,246	2,301	1,941	1,617	1,748
{ Births.....													
{ Deaths.....													
{ Excess of Births.....													
Monthly averages of excess for 1876 to 1881, inclusive	15,547	1,328	1,354	1,520	1,378	1,430	1,436	1,338	1,607	903	1,137	1,237	1,431
Monthly averages of excess for 1876 to 1881, inclusive	19,768	1,413	1,382	1,639	1,509	1,698	1,718	1,796	1,647	1,643	1,735	1,714	1,856

<sup>a</sup> Unknown month excluded.



EXHIBIT 2.—*Births Returned as having occurred in Michigan, by Months, during the Year 1881, and Marriages and Deaths during Months of Conceptions of the Births,—all Months Equalized to Uniform length of 30.44 days.*

	Totals. <sup>a</sup>	MONTHS,—1881.												Av. Mo.
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
Births, 1881, equalized to months of uniform length....	34,730	2,350	2,644	2,784	2,846	2,835	2,752	2,973	3,254	3,251	3,023	2,806	3,122	2,894
Births, 1881, corrected for omissions in enumerating, and equalized to months of uniform length....	49,817	3,941	4,321	4,432	4,412	4,274	4,032	4,239	4,492	4,352	3,918	3,631	3,782	4,151
	Total. <sup>a</sup>	MONTHS,—1880.										1881.		Av. Mo.
		Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	
Marriages, <sup>b</sup> equalized to months of uniform length....	14,746	1,159	1,020	1,033	1,112	1,037	1,393	1,433	1,612	1,521	1,141	1,151	1,134	1,229
Deaths, equalized to months of uniform length....	16,503	1,308	1,145	1,051	1,500	1,748	1,701	1,445	1,508	1,588	1,046	1,171	1,292	1,375
Deaths, corrected for omissions in enumerating, and equalized to months of uniform length....	26,018	2,394	2,023	1,790	2,457	2,752	2,569	2,000	2,085	2,094	1,765	1,929	2,069	2,168
Deaths, corrected and equalized, equalized to months of uniform length....	26,579	2,470	2,080	1,834	2,509	2,800	2,606	2,112	2,100	2,101	1,840	2,003	2,142	2,216

<sup>a</sup> Excluding unknown month.

<sup>b</sup> Corrected for additional returns up to Feb. 8, 1883.

Many interesting and important influences which the births, marriages, and deaths sustain to each other may be seen in Exhibit 2. It will be seen that the larger number of births in the months of July, August, and September of the year 1881 appear to have been coincident with the large number of marriages which were solemnized in the months of October, November, and December of the year 1880.

In Exhibit 2 the plus and minus signs indicate, respectively, that in the months where they occur the number under the sign is greater or less, as the case may be, than the number for the "Average Month."

Before the births are corrected for omissions, the first six months have less, and the last six months have more, than the average monthly number.

Using the number of births returned and equalized by months as the data, proposition may be made as follows:

(1.) *More* than an average number of conceptions occurred in months in which *more* than an average number of marriages were solemnized, and *less* than an average number in months in which *less* than an average number of marriages were solemnized.

(2.) *Less* than an average number of conceptions occurred in months in which *more* than an average number of deaths occurred, and *more* than an average number of conceptions in months in which *less* than an average number of deaths occurred.

According to Exhibit 2, there are four exceptions to the first proposition, and six to the second. Proposition 1, therefore, holds true in eight of the twelve instances, and proposition 2 in six. If the births and deaths corrected for omissions are thus studied in connection with marriages, proposition 1 holds true in seven and proposition 2 in six out of the twelve cases.

EXHIBIT D.—*Grouping the Evidence of the Vital Statistics on the subject of the Comparative Natural Increase of Native and of Foreign-born Inhabitants of Michigan, by Excess of Births over Deaths, according to the Returns, the Evidence Exhibited Covering the Years 1876 to 1881, inclusive.*

BIRTHS, DEATHS, AND EXCESS OF BIRTHS OVER DEATHS.	1876.			1877.			1878.			1879.			1880.			1881.		
	Total.	Both Parents of Child- ren Native-born.	Both Parents of Child- ren Foreign-born.	Total.	Both Parents of Child- ren Native-born.	Both Parents of Child- ren Foreign-born.	Total.	Both Parents of Child- ren Native-born.	Both Parents of Child- ren Foreign-born.	Total.	Both Parents of Child- ren Native-born.	Both Parents of Child- ren Foreign-born.	Total.	Both Parents of Child- ren Native-born.	Both Parents of Child- ren Foreign-born.	Total.	Both Parents of Child- ren Native-born.	Both Parents of Child- ren Foreign-born.
Births by parent nativity.....	a 54,255	15,531	11,901	a 33,385	15,270	11,557	a 35,162	16,323	11,992	a 34,122	15,864	11,369	a 35,323	16,274	11,982	a 34,749	15,907	11,560
Deaths, by nativ- ity.....	b 12,576	10,147	2,078	b 12,919	10,305	2,251	b 12,763	10,183	2,237	b 14,407	11,495	2,458	b 16,102	12,572	2,562	b 19,238	15,402	3,407
Excess of births over deaths...	21,639	5,404	9,823	20,476	4,965	9,306	22,398	6,140	9,755	19,715	4,369	8,911	19,221	3,702	9,020	15,311	565	8,153

a Includes children of mixed parentage and those where the nativity of one or both parents is unknown.

b Includes deaths of persons of unknown nativity.

c Includes all deaths of persons born in the United States, whether born of native or of foreign-born parents.

d Includes only persons who were born in foreign countries.

TABLE II.—*Exhibiting, by Sex, the Population in 1880, the Number of Marriages, Births, and Deaths, and the Excess of Births over Deaths, in Michigan during the Year 1881, according to the Returns.*

STATE AND COUNTIES.	POPULATION, 1880.			Marriages, 1881.	BIRTHS, 1881.			DEATHS, 1881.			EXCESS OF BIRTHS OVER DEATHS.		
	Total.	Sex.			Total.	Sex.		Total.	Sex.		Total.	Sex.	
		Males.	Females.			Males.	Fe- males.		Un- known.	Males.		Fe- males.	Un- known.
STATE.....	1,636,937	862,355	774,582	14,847	34,749	17,941	16,747	61	19,238	10,263	8,970	7,678	-4
Alcona.....	3,107	1,945	1,162	14	42	15	27	.....	12	7	5	8	22
Allegan.....	37,815	19,732	18,083	373	830	427	401	2	412	215	197	212	204
Alpena.....	8,789	5,161	3,628	100	226	113	113	.....	114	74	40	39	73
Antrim.....	5,237	2,867	2,370	36	140	77	63	.....	75	35	40	42	23
Baraga.....	1,804	1,036	768	16	55	27	28	.....	18	7	11	20	17
Barry.....	25,317	13,284	12,033	199	480	233	248	.....	290	126	164	106	84
Bay.....	38,061	21,068	16,893	302	1,180	626	534	.....	541	305	236	321	298
Benzie.....	3,433	1,862	1,571	43	108	55	53	.....	65	33	32	22	21
Berrien.....	36,735	18,806	17,980	562	618	331	287	.....	307	150	156	131	-1
Branch.....	27,941	14,240	13,701	231	410	200	210	.....	235	157	98	43	112
Calhoun.....	33,432	19,599	13,833	329	547	299	243	5	426	223	196	76	47
Cass.....	22,009	11,350	10,659	241	338	159	179	.....	176	85	91	74	88
Charlevoix.....	5,115	2,743	2,372	54	125	61	64	.....	54	27	27	34	37
Cheboygan.....	6,524	3,760	2,764	73	192	97	95	.....	109	59	50	38	45
Chippewa.....	5,248	2,906	2,342	52	65	30	26	.....	10	5	5	34	21
Clare.....	4,187	2,793	1,394	42	84	46	38	.....	66	33	33	13	5
Clinton.....	28,100	14,657	13,443	236	442	217	225	.....	276	131	145	86	80
Urawford.....	1,169	633	476	11	29	13	16	.....	16	7	9	6	7
Delta.....	6,813	4,173	2,640	72	199	83	116	.....	88	45	34	38	52



Easton.....	31,233	16,072	15,153	240	608	320	237	1	356	173	184	252	148	103	1
Emmet.....	6,639	3,544	3,095	64	134	66	68	-----	79	44	35	55	22	33	-----
Genesee.....	39,320	20,042	19,178	329	693	316	347	-----	409	208	201	254	108	146	-----
Gladwin..... <sup>f</sup>	1,127	749	378	4	12	6	5	1	10	5	4	2	1	1	-----
Grand Traverse... <sup>g</sup>	8,422	4,608	3,814	59	127	66	61	-----	70	36	34	57	30	27	-----
Gratiot.....	21,926	11,687	10,249	197	563	287	280	1	212	109	102	1	356	178	-----
Hillsdale.....	33,723	16,544	16,179	346	461	221	240	-----	372	208	164	89	13	76	-----
Houghton.....	22,473	12,242	10,231	196	763	391	374	-----	243	131	112	322	260	262	-----
Huron.....	20,089	10,714	9,375	134	546	284	281	1	242	116	125	1	304	148	-----
Ingham.....	33,676	17,399	16,277	294	529	249	279	1	298	147	150	1	231	102	-----
Ionia.....	33,872	17,974	15,898	298	615	330	284	1	300	154	145	1	315	176	-----
Iosco.....	6,873	4,097	2,776	110	198	98	100	-----	174	90	84	24	8	16	-----
Isabella.....	12,139	6,602	5,537	99	374	173	201	-----	176	91	85	198	82	116	-----
Isle Royal.....	55	31	24	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Jackson.....	42,031	21,833	20,198	421	816	412	404	-----	407	225	182	409	187	222	-----
Kalamazoo.....	34,342	17,343	16,969	276	565	306	259	-----	437	221	216	128	85	43	-----
Kalkaska..... <sup>h</sup>	2,937	1,617	1,320	31	88	46	42	-----	38	20	18	50	26	24	-----
Kent.....	73,253	38,014	35,239	646	1,714	855	857	2	1,022	549	472	1	692	306	-----
Keweenaw.....	4,270	2,396	1,874	31	308	175	132	1	122	67	51	4	186	108	-----
Lake.....	3,233	1,941	1,292	21	83	39	44	-----	48	29	19	35	10	25	-----

\* The figures with the minus sign placed before them indicate the excess of deaths over births.

<sup>b</sup> No returns of deaths from the townships of Green and Ossineke.

<sup>c</sup> No returns of deaths from the township of St. Joseph.

<sup>d</sup> No returns of births from the townships of Evangeline, Eveline, and Melrose, and no returns of deaths from the townships of Evelyn and Marion.

<sup>e</sup> No returns of births nor deaths from the township of Detour.

<sup>f</sup> No returns of births nor deaths from the township of Grant.

<sup>g</sup> No returns of deaths from the townships of East Bay, Grant, and Paradise.

<sup>h</sup> No returns of deaths from the townships of Garfield and Oliver.

TABLE II.—CONTINUED.

COUNTIES.	POPULATION, 1880.			Marriages, 1881.	BIRTHS, 1881.			DEATHS, 1881.			EXCESS OF BIRTHS OVER DEATHS.					
	Total.	SEX.			Total.	Males.	Fe- males.	Un- known.	Total.	Males.	Fe- males.	Un- known.	Total.	Males.	Fe- males.	Un- known.
Lapeer.....	30,138	15,827	14,311	249	291	237	2	306	154	151	1	244	137	106	1	
Leclanaw.....	6,253	3,388	2,865	46	71	76	.....	96	56	39	1	51	15	37	-1	
Lenawee.....	48,343	24,281	24,062	509	355	350	2	415	216	198	1	292	139	152	1	
Livingston.....	22,251	11,620	10,631	166	226	202	.....	259	137	122	.....	169	89	80	.....	
Mackinac.....	2,902	1,680	1,213	38	12	17	.....	19	10	9	.....	10	2	8	.....	
Macomb.....	31,627	15,157	15,470	241	309	298	1	305	187	118	.....	303	122	180	1	
Manistee.....	12,532	6,969	5,563	113	221	182	2	181	100	81	.....	224	121	101	2	
Manitou.....	1,354	718	616	6	8	11	.....	5	1	4	.....	14	7	7	.....	
Marquette.....	25,394	14,760	10,634	265	415	383	12	406	238	156	12	404	177	227	.....	
Mason.....	10,065	5,659	4,406	101	111	123	.....	184	93	91	.....	50	18	32	.....	
Mecosta.....	13,973	7,626	6,347	143	153	140	1	297	163	134	.....	-3	-10	6	1	
Menominee.....	11,987	8,000	3,987	138	176	171	.....	150	95	54	1	197	81	117	-1	
Midland.....	6,893	3,780	3,113	59	83	79	1	83	46	36	.....	80	37	43	.....	
Missaukee.....	1,553	942	611	8	30	30	1	27	15	11	1	34	15	19	.....	
Monroe.....	33,624	17,250	16,374	345	387	344	.....	346	170	175	1	385	217	169	-1	
Montcalm.....	33,148	18,321	14,827	235	293	202	1	396	223	173	1	70	40	30	.....	
Montmorency.....	.....	.....	.....	1	5	3	.....	5	3	2	.....	3	2	1	.....	
Muskegon.....	26,886	14,784	11,802	324	375	337	1	463	245	214	2	251	130	123	-2	
Newaygo.....	14,688	8,376	6,312	112	123	122	.....	165	83	82	.....	80	40	40	.....	
Oakland.....	41,537	21,327	20,210	307	2-0	231	2	380	213	174	3	123	67	57	-1	
Oceana.....	11,059	6,444	5,255	97	136	114	.....	166	78	88	.....	74	48	26	.....	

# BIRTHS, MARRIAGES, AND DEATHS.

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	1,914	1,168	746	14	39	24	14	1	25	13	12	14	11	2	1
Ogemaw.....	1,914	1,168	746	14	39	24	14	1	25	13	12	14	11	2	1
Ontonagon.....	2,565	1,335	1,230	15	47	24	23	.....	19	15	4	.....	9	19	.....
Oscoda.....	10,777	6,015	4,762	125	279	157	192	.....	127	61	65	.....	96	56	.....
Oscoda.....	467	291	173	8	8	4	4	.....	11	5	6	.....	-1	-2	.....
Otsego.....	1,974	1,137	837	20	50	34	16	.....	23	12	11	.....	27	5	.....
Ottawa.....	33,126	17,472	15,654	317	787	415	368	4	420	241	175	4	367	193	.....
Presque Isle.....	3,113	1,701	1,412	33	124	58	66	.....	38	22	16	.....	85	50	.....
Roscommon.....	1,459	1,066	833	13	33	20	13	.....	12	8	4	.....	21	9	.....
Saginaw.....	59,095	31,803	27,292	570	1,518	800	718	.....	937	537	400	.....	561	318	.....
Sanilac.....	26,341	14,023	12,318	125	639	346	342	1	298	146	152	.....	391	190	1
Schoolcraft.....	1,575	1,097	478	6	16	9	7	.....	14	9	5	.....	2	2	.....
Shiawassee.....	27,059	14,248	12,811	296	470	270	197	3	254	119	131	4	216	66	-1
St. Clair.....	46,197	23,922	22,275	339	952	482	463	7	464	223	220	6	488	243	1
St. Joseph.....	26,623	13,516	13,110	364	402	205	197	.....	232	120	112	.....	170	85	.....
Tuscola.....	25,738	13,644	12,034	159	583	313	270	.....	344	177	167	.....	239	103	.....
Van Buren.....	39,897	15,757	15,050	249	512	271	240	1	310	158	151	1	292	89	.....
Washtenaw.....	41,848	21,250	20,598	322	619	332	287	.....	405	223	182	.....	214	105	.....
Wayne.....	199,444	82,917	83,527	1,555	4,501	2,357	2,143	1	2,229	1,232	995	2	2,272	1,148	-1
Wexford.....	6,815	3,903	2,912	67	138	63	74	1	73	35	38	.....	65	36	1

\* The figures with the minus sign placed before them indicate the excess of deaths over births.

b No returns of births nor deaths from the township of Hendricks.

c No returns of births nor deaths from the townships of Crystal Falls, Iron River, and Richmond, and no returns of deaths from the township of Champlain.

d No returns of births from the township of Lincoln.

e No returns of births nor deaths from the township of Home.

f No returns of births nor deaths from the township of Grant.

g No returns of deaths from the township of Otto.

h No returns of births nor deaths from the townships of Damon and West Branch, and no returns of deaths from the township of Cumming.

i No returns of births nor deaths from the townships of Carp Lake and Rockland.

j No returns of deaths from the townships of Charlton and Livingston.

k No returns of births nor deaths from the townships of Munising and Thompson.

l No returns of births nor deaths from the townships of Henderson and South Branch.

\* The population of Montmorency county cannot be ascertained. It was compiled with Alpena county.

The number of births and deaths that were returned to the State Department, as having occurred out of Michigan, may be seen in Exhibit E. The births, as compared with those of 1880, are less by 111, while the deaths are more by 57 than those reported in 1880. The large majority of these births and deaths are undoubtedly from families which moved into the State after the births and deaths occurred and were taken by the supervisors in their enumeration.

**EXHIBIT E.**—*Showing, for the State and Counties of Michigan, the Number of Births and Deaths returned to this Department as having occurred out of Michigan during the year 1881 (Presumably in Families Residing in Michigan).*

STATE AND COUNTIES.	1881.		COUNTIES.	1881.	
	Births.	Deaths.		Births.	Deaths.
STATE.....	375	129	Lapeer.....	4	3.
Allegan.....	17	3	Leelanaw.....	1	-----
Alpena.....	1	-----	Lenawee.....	12	4
Antrim.....	6	-----	Livingston.....	-----	3
Barry.....	5	1	Macomb.....	1	-----
Bay.....	10	3	Manistee.....	1	-----
Benzle.....	-----	1	Marquette.....	15	6
Berrien.....	10	1.	Mason.....	6	1
Branch.....	2	5	Mecosta.....	6	1
Calhoun.....	4	3	Midland.....	1	-----
Cass.....	5	2	Missaukee.....	-----	1
Charlevoix.....	6	-----	Monroe.....	-----	7
Cheboygan.....	1	-----	Montcalm.....	3	2
Clinton.....	2	-----	Muskegon.....	15	4
Eaton.....	5	2	Newaygo.....	1	-----
Genesee.....	8	3	Oakland.....	2	2
Grand Traverse.....	2	-----	Oceana.....	4	-----
Gratiot.....	1	-----	Ogemaw.....	1	-----
Houghton.....	5	-----	Osceola.....	10	2
Huron.....	3	2	Ottawa.....	9	3
Ingham.....	3	2	Presque Isle.....	1	-----
Ionia.....	5	6	Sanilac.....	9	6.
Iosco.....	8	1	Shiawassee.....	3	-----
Isabella.....	5	2	St. Clair.....	8	6.
Jackson.....	12	3	St. Joseph.....	3	5
Kalamazoo.....	-----	1	Van Buren.....	5	3.
Kalkaska.....	1	-----	Washtenaw.....	7	2
Kent.....	11	9	Wayne.....	103	19
Keweenaw.....	1	-----	Wexford.....	3	-----
Lake.....	3	1			

## BIRTHS, 1881.

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According to the returns made to the State Department by the county clerks, the number of children born in the State of Michigan during the year 1881, was 34,749. This is 574 less than the number recorded for 1880, and 413 less than the number recorded for 1878. With these two exceptions the number is larger than was returned for any of the previous years. This number does not represent accurately the births which occurred in the State during the year, because of the defective system of registration which admits of many evasions and errors. For example, the birth-returns are obtained by the supervisors in a house to house visitation, made annually, and many months after the births occur; thus the omissions and discrepancies probable from such methods hardly need be mentioned. In order to offset this deficiency and obtain as nearly as possible the actual number of births, a system of correction has been adopted in previous reports, and the same plan has been used in this volume. This method of correction will be found fully explained in previous reports.

Y E A R S .	Per Cent. of Births Returned.	Per Cent. of Births Added as Correction for Omissions.
1872.....	64.95	43.95
1873.....	76.79	30.34
1874.....	55.75	79.37
1875.....	68.61	45.76
1876.....	75.73	32.04
1877.....	66.47	50.44
1878.....	67.41	48.34
1879.....	68.05	46.91
1880.....	69.73	43.42
1881.....	69.76	43.35
Average for 10 years..	68.32	46.39

The number of births added to make up the deficiency in the returns is 15,051, which is 43.35 per cent. of the number (34,749) actually returned. It is seen then that the number of births returned, excluding those in unknown



TABLE II.—CONTINUED.

COUNTIES.	POPULATION, 1880.			Marriages, 1881.	BIRTHS, 1881.				DEATHS, 1881.				EXCESS OF BIRTHS OVER DEATHS. <sup>a</sup>			
	SEX.				SEX.			SEX.								
	Total.	Males.	Females.		Total.	Males.	Fe- males.	Un- known.	Total.	Males.	Fe- males.	Un- known.	Total.	Males.	Fe- males.	Un- known.
Lapeer.....	30,138	15,827	14,311	249	550	291	257	2	306	154	151	1	244	137	106	1
Leelanaw .....	6,253	3,388	2,865	46	147	71	76	.....	96	56	39	1	51	15	37	-1
Lenawee.....	48,343	24,281	24,062	569	707	355	350	2	415	216	198	1	292	139	152	1
Livingston.....	22,251	11,620	10,631	166	428	226	202	.....	259	137	122	.....	169	89	80	.....
Mackinac..... <sup>b</sup>	2,902	1,689	1,213	38	29	12	17	.....	19	10	9	.....	10	2	8	.....
Macomb.....	31,627	16,157	15,470	241	608	309	298	1	305	187	118	.....	303	122	180	1
Manistee.....	12,532	6,969	5,563	113	405	221	182	2	181	100	81	.....	224	121	101	2
Manitou.....	1,334	718	616	6	19	8	11	.....	5	1	4	.....	14	7	7	.....
Marquette..... <sup>c</sup>	25,394	14,760	10,634	205	810	415	383	12	406	238	156	12	404	177	227	.....
Mason..... <sup>d</sup>	10,065	5,659	4,406	101	234	111	123	.....	184	93	91	.....	50	18	32	.....
Mecosta.....	13,973	7,626	6,347	143	294	153	140	1	297	163	134	.....	-3	-10	6	1
Menominee.....	11,987	8,000	3,987	158	347	176	171	.....	150	95	54	1	197	81	117	-1
Midland.....	6,893	3,780	3,113	59	163	83	79	1	83	46	36	1	80	37	43	.....
Missaukee.....	1,553	942	611	8	61	30	30	1	27	15	11	1	34	15	19	.....
Monroe.....	33,624	17,250	16,374	345	731	387	344	.....	346	170	175	1	385	217	169	-1
Montcalm..... <sup>e</sup>	33,148	18,321	14,827	226	466	263	202	1	396	223	172	1	70	40	30	.....
Montmorency..... <sup>e</sup>	.....	.....	.....	1	8	5	3	.....	5	3	2	.....	3	2	1	.....
Muskegon.....	26,886	14,784	11,802	324	713	375	337	1	462	245	214	3	251	130	123	-2
Newaygo..... <sup>f</sup>	14,688	8,376	6,312	112	245	123	122	.....	165	83	82	.....	80	40	40	.....
Oakland.....	41,537	21,327	20,210	307	513	240	231	2	390	213	174	3	123	67	57	-1
Oscoda..... <sup>g</sup>	11,669	6,444	5,225	97	240	126	114	.....	166	78	86	.....	74	46	26	.....

# BIRTHS, MARRIAGES, AND DEATHS.

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	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Ogemaw.....	1,914	1,168	746	14	39	24	14	1	25	13	12	12	11	367	174	103	50	21	12	9	318	190	2	2	151	66	243	85	103	89	105	1,148	1																																																																			
Ontonagon.....	2,665	1,335	1,230	15	47	24	23	.....	19	15	4	4	66	103	96	56	.....	28	9	19	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																																																																		
Oscoda.....	10,777	6,015	4,762	125	279	157	122	.....	127	61	66	.....	.....	103	96	56	.....	103	96	56	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																																																																		
Oscoda.....	467	291	176	3	8	4	4	.....	11	5	6	.....	.....	3	-1	-2	.....	3	-1	-2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																																																																		
Otsego.....	1,974	1,137	837	20	50	34	16	.....	23	12	11	.....	.....	27	22	5	.....	27	22	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																																																																		
Ottawa.....	33,126	17,472	15,654	317	787	415	398	4	420	241	175	4	.....	367	174	103	.....	367	174	103	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																																																																		
Presque Isle.....	3,113	1,701	1,412	33	124	58	66	.....	38	22	16	.....	.....	86	36	50	.....	86	36	50	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																																																																		
Roscommon.....	1,459	1,066	863	13	33	20	13	.....	12	8	4	.....	.....	21	12	9	.....	21	12	9	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																																																																		
Saginaw.....	50,065	31,893	27,292	570	1,518	800	718	.....	957	537	400	.....	.....	561	243	318	.....	561	243	318	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																																																																		
Sault Ste. Marie.....	26,341	14,023	12,318	125	689	346	342	1	298	146	132	.....	.....	391	200	190	.....	391	200	190	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																																																																		
Schoolcraft.....	1,575	1,097	478	6	16	9	7	.....	14	9	5	.....	.....	2	.....	2	.....	2	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																																																																		
Shiawassee.....	27,059	14,248	12,811	208	470	270	197	3	254	119	131	4	.....	216	151	66	.....	216	151	66	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																																																																		
St. Clair.....	46,197	23,922	22,275	339	932	482	463	7	464	238	220	6	.....	488	244	243	.....	488	244	243	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																																																																		
St. Joseph.....	29,626	13,516	13,110	364	402	205	197	.....	232	120	112	.....	.....	170	85	85	.....	170	85	85	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																																																																		
Tuscola.....	25,738	13,644	12,094	199	583	313	270	.....	344	177	167	.....	.....	239	136	103	.....	239	136	103	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																																																																		
Van Buren.....	30,807	15,757	15,050	249	512	271	240	1	310	158	151	1	.....	202	113	89	.....	202	113	89	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																																																																		
Washtenaw.....	41,848	21,250	20,598	322	619	332	287	.....	405	223	182	.....	.....	214	169	105	.....	214	169	105	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																																																																		
Wayne.....	136,444	82,917	83,527	1,555	4,501	2,357	2,143	1	2,229	1,232	995	2	.....	2,272	1,125	1,148	.....	2,272	1,125	1,148	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																																																																		
Wexford.....	6,815	3,903	2,912	67	138	63	74	1	73	35	38	.....	.....	65	28	36	.....	65	28	36	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....																																																																		

a The figures with the minus sign placed before them indicate the excess of deaths over births.

b No returns of births nor deaths from the township of Hendricks.

c No returns of births nor deaths from the townships of Crystal Falls, Iron River, and Richmond, and no returns of deaths from the township of Champion.

d No returns of births from the township of Lincoln.

e No returns of births nor deaths from the township of Home.

f No returns of births nor deaths from the township of Grant.

g No returns of deaths from the township of Otto.

h No returns of births nor deaths from the townships of Damon and West Branch, and no returns of deaths from the township of Cumming.

i No returns of births nor deaths from the townships of Carp Lake and Rockland.

j No returns of deaths from the townships of Charlton and Livingston.

k No returns of births nor deaths from the townships of Munising and Thompson.

l No returns of births nor deaths from the townships of Henderson and South Branch.

m The population of Montmorency county cannot be ascertained. It was compiled with Alpena county.

## VITAL STATISTICS OF MICHIGAN, 1881.

TABLE II.—*Births during the Years 1876—1881, inclusive, according to the Returns, exhibiting the Number and Per Cent. of Total, by Months, arranged in Order by Number, Months having the greatest number first.*

Order.	1876.			1877.			1878.			1879.			1880.			1881.		
	Months.	Num-ber.	Per Ct. of Total.	Months.	Num-ber.	Per Ct. of Total.	Months.	Num-ber.	Per Ct. of Total.	Months.	Num-ber.	Per Ct. of Total.	Months.	Num-ber.	Per Ct. of Total.	Months.	Num-ber.	Per Ct. of Total.
	Total..	34,235	100.00	Total..	33,895	100.00	Total..	33,162	100.00	Total..	34,122	100.00	Total..	33,323	100.00	Total..	34,749	100.00
1	Dec. ...	3,505	9.36	Aug. ...	3,227	9.66	Dec. ...	3,423	9.73	Dec. ...	3,233	9.47	Aug. ...	3,235	9.30	Aug. ...	3,313	9.53
2	Aug. ...	3,124	9.13	Dec. ...	3,145	9.42	Aug. ...	3,295	9.37	Aug. ...	3,198	9.37	Sept. ...	3,278	9.25	Sept. ...	3,204	9.22
3	Sept. ...	3,110	9.08	Sept. ...	3,048	9.13	Oct. ...	3,266	9.29	Sept. ...	3,149	9.26	Dec. ...	3,278	9.28	Dec. ...	3,179	9.15
4	Oct. ....	3,039	8.88	Oct. ...	3,015	9.03	Sept. ...	3,290	9.27	Oct. ...	3,036	8.90	Oct. ...	3,173	8.98	Oct. ...	3,078	8.86
5	July ...	3,014	8.80	July ...	2,899	8.68	Nov. ...	3,061	8.71	July ...	3,018	8.84	Nov. ...	3,068	8.69	July ...	3,027	8.71
6	Nov. ...	2,921	8.53	Nov. ...	2,847	8.53	April. ...	2,937	8.35	May ...	2,842	8.33	July ...	3,011	8.53	May ...	2,897	8.31
7	May ...	2,870	8.38	Mar. ...	2,690	8.06	Mar. ...	2,836	8.07	Nov. ...	2,766	8.11	May ...	2,890	8.15	Nov. ...	2,854	8.21
8	Mar. ...	2,744	8.01	May ...	2,683	8.03	July ...	2,835	8.06	Mar. ...	2,758	8.08	Mar. ...	2,850	8.07	Mar. ...	2,835	8.16
9	June ...	2,739	8.00	June ...	2,657	7.96	May ...	2,805	7.98	April. ...	2,706	7.93	April. ...	2,824	7.99	April. ...	2,805	8.07
10	April. ...	2,730	7.97	April. ...	2,655	7.95	June ...	2,797	7.95	June ...	2,626	7.70	June ...	2,772	7.85	June ...	2,713	7.80
11	Feb. ...	2,352	6.87	Feb. ...	2,246	6.73	Feb. ...	2,414	6.87	Jan. ...	2,429	7.13	Feb. ...	2,513	7.11	Feb. ...	2,432	7.00
12	Jan. ...	2,253	6.57	Jan. ...	2,212	6.62	Jan. ...	2,201	6.26	Feb. ...	2,331	6.83	Jan. ...	2,335	6.67	Jan. ...	2,393	6.89
	Unk. ...	104	.30	Unk. ...	71	.21	Unk. ...	53	.09	Unk. ...	30	.09	Unk. ...	36	.10	Unk. ...	30	.09
	Av. ....	2,853	8.33	Av. ....	2,783	8.33	Av. ....	2,930	8.33	Av. ....	2,844	8.33	Av. ....	2,944	8.33	Av. ....	2,896	8.33

\* Including unknown month.

# BIRTHS BY MONTHS, CORRECTED FOR OMISSIONS.

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Exhibit 2 is similar in construction to Table II. and shows the order of the months when the births are corrected for omissions in the enumeration. It will be noticed that the order of the months is not the same as in Table II.

**EXHIBIT 2.**—*Births during the Years 1878 to 1881, inclusive, as Corrected for Omissions in the Enumeration, exhibiting the Number and Per Cent. of Total, by Months arranged in order by Number, Months having the greatest number first.*

	1878.			1879.			1880.			1881.		
	MONTHS.	Num-ber.	Per Ct. of Total.	MONTHS.	Num-ber.	Per Ct. of Total.	MONTHS.	Num-ber.	Per Ct. of Total.	MONTHS.	Num-ber.	Per Ct. of Total.
<b>Total....</b>		<b>52,145</b>	<b>100.00</b>	<b>Total....</b>	<b>50,130</b>	<b>100.00</b>	<b>Total....</b>	<b>50,643</b>	<b>100.00</b>	<b>Total....</b>	<b>49,900</b>	<b>100.00</b>
1 April....	4,759	9.13		Mar.....	4,530	9.04	Mar.....	4,549	8.98	Aug. ....	4,575	9.19
2 March....	4,730	9.07		Aug. ....	4,519	9.01	Aug.....	4,543	8.97	Mar.....	4,514	9.06
3 Aug. ....	4,710	9.03		May.....	4,407	8.79	Sept.....	4,394	8.68	May.....	4,353	8.74
4 Sept....	4,504	8.64		July.....	4,403	8.78	April....	4,387	8.66	April....	4,348	8.73
5 May.....	4,411	8.46		Apr.....	4,321	8.62	May.....	4,351	8.59	July.....	4,308	8.65
6 Oct.....	4,357	8.36		Sept.....	4,305	8.59	July.....	4,292	8.48	Sept.....	4,239	8.61
7 June.....	4,265	8.18		Jan.....	4,313	8.40	Feb.....	4,118	8.13	Jan.....	4,013	8.06
8 Dec.....	4,240	8.13		Oct.....	4,011	8.00	Oct.....	4,118	8.13	Oct.....	3,990	8.01
9 July.....	4,188	8.03		Dec.....	3,975	7.93	June....	4,070	8.04	Feb.....	3,975	7.98
10 Feb.....	4,131	7.92		June....	3,952	7.88	Dec.....	3,975	7.83	June....	3,974	7.98
11 Nov.....	3,937	7.55		Feb.....	3,936	7.85	Jan.....	3,959	7.82	Dec.....	3,853	7.74
12 Jan.....	3,881	7.44		Nov.....	3,523	7.04	Nov.....	3,851	7.60	Nov.....	3,579	7.19
Unk. ....	32	.06		Unk. ....	30	.06	Unk. ....	36	.07	Unk. ....	30	.06
Aver'ge a	4,345	8.33		Aver'ge a	4,178	8.33	Aver'ge a	4,220	8.33	Aver'ge a	4,150	8.33

a Including births in unknown month.

The following Exhibits, A, B, C, D, and 3 illustrate the manner of making the corrections in the number of births returned so as to equal the number which probably occurred. Remarks on this system of correction will be found in previous reports.

## VITAL STATISTICS OF MICHIGAN, 1881.

**EXHIBIT C.—Births of Females in Michigan during the Year 1881, as Returned, as Corrected for Omissions in the Enumeration; the same Equalized for Increase of Population during the Year covered by the Returns, and the Births as thus Corrected and Equalized for the several Months, Equalized for Months of 30.44 Days each.**

	TOTAL.	MONTHS, 1881.											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Births of Females as returned by Registration Office.....	10,734	1,128	1,179	1,376	1,301	1,413	1,296	1,447	1,625	1,568	1,451	1,410	1,510
Per cent. of Births to be added for correction for time elapsing before enumeration.....	63.96	63.96	63.96	63.96	61.96	47.96	43.96	39.96	35.96	31.96	27.96	23.96	19.96
Number of births to be added for above correction.....	6,836	721	707	770	676	678	570	578	584	501	406	338	307
Births of Females, if enumerated in months of occurrence.....	23,570	1,849	1,886	2,146	1,977	2,091	1,866	2,025	2,209	2,069	1,857	1,748	1,847
Per cent. of births to be added to equalize them to population at close of year.....	4.21	3.86	3.51	3.16	2.81	2.46	2.11	1.76	1.41	1.06	.71	.35	
Births to be added to equalize them to population at close of year.....	542	78	73	75	62	59	46	43	39	29	20	12	6
Births of Females, as corrected, equalized to population at close of year..	24,112	1,927	1,959	2,221	2,039	2,150	1,912	2,068	2,248	2,098	1,877	1,760	1,853
Days and hundredths by which the months should be increased or diminished to equalize them to months of uniform length.....	—	—56	+2.44	—56	+44	—56	+44	—56	—56	+44	—56	+44	—56
Number of Births added or subtracted to equalize them to months of uniform length.....	+27	—36	+171	—40	+30	—39	+28	—37	—41	+31	—34	+26	—33
Births of Females, corrected and equalized, equalized to months of uniform length.....	24,139	1,891	2,130	2,181	2,069	2,111	1,940	2,031	2,207	2,129	1,813	1,786	1,820

\* Excluding 13 births in unknown month.

# BIRTHS BY MONTHS, CORRECTED FOR OMISSIONS.

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EXHIBIT D.—Births of Males and of Females in Michigan during the Year 1881, Corrected for Omissions in the Enumeration, and, as thus Corrected, Equalized to Months of Uniform length; also, the total Births of both Sexes as thus Corrected and Equalized. (Births of Children of unknown Sex not included.)

	TOTAL.	MONTHS, 1881.											
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Births of Males, if enumerated in months of occurrence.....	a 26,043	2,153	2,070	2,856	2,365	2,247	2,097	2,267	2,331	2,207	2,125	1,816	1,989
Days and hundredths by which the months should be increased or diminished to equalize them to months of uniform length.....		-.56	+ 2.44	-.56	+ .44	-.56	+ .44	-.56	-.56	+ .44	-.56	+ .44	-.56
Number of births added or subtracted to equalize them to months of uniform length.....	+ 25	-39	+ 180	-43	+ 36	-41	+ 31	-41	-42	+ 32	-38	+ 27	-36
Births of Males, corrected and equalized to months of uniform length.....	26,067	2,114	2,250	2,812	2,400	2,206	2,128	2,226	2,309	2,239	2,087	1,843	1,953
Births of Females, if enumerated in months of occurrence.....	b 23,570	1,849	1,886	2,146	1,977	2,091	1,866	2,025	2,209	2,069	1,837	1,748	1,847
Days and hundredths by which the months should be increased or diminished to equalize them to months of uniform length.....		-.56	+ 2.44	-.56	+ .44	-.56	+ .44	-.56	-.56	+ .44	-.56	+ .44	-.56
Number of births added or subtracted to equalize them to months of uniform length.....	+ 22	-33	+ 164	-39	+ 29	-38	+ 27	-37	-40	+ 30	-34	+ 26	-33
Births of Females, corrected and equalized to months of uniform length.....	23,592	1,816	2,050	2,107	2,006	2,053	1,893	1,988	2,169	2,099	1,823	1,774	1,814
Births of Males, corrected and equalized to months of uniform length.....	26,067	2,114	2,250	2,812	2,400	2,206	2,128	2,226	2,309	2,239	2,087	1,843	1,953
Births of Males and of Females, corrected and equalized to months of uniform length.....	49,659	3,930	4,300	4,419	4,406	4,269	4,021	4,214	4,478	4,338	3,910	3,617	3,767
Males to 100 Females, Births corrected and equalized to months of uniform length.....	110	116	110	110	120	107	112	112	106	107	114	104	108

a Excluding 16 births in unknown month.

b Excluding 13 births in unknown month.

EXHIBIT 3.—Births in Michigan during the Year 1881, Corrected for Omissions in Enumerating and Equalized for Months of a uniform length of 30.44 Days each. (Still-births and Children of unknown Sex included.)

	MONTHS, 1881.												
	TOTAL.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Births, if enumerated in months of occurrence.....	49,770	4,013	3,975	4,514	4,348	4,333	3,974	4,308	4,575	4,289	3,980	3,579	3,852
28 and hundredths by which the months should be increased or diminished to equalize them to months of uniform length.....	—	—	—	—	—	—	—	—	—	—	—	—	—
Number of births added or subtracted to equalize them to months of uniform length.....	—	—56	+241	—55	+44	—50	+44	—56	—56	+41	—56	+44	—56
Births, corrected and equalized to months of uniform length.....	49,817	3,941	4,321	4,432	4,412	—79	+58	—75	—83	+63	—72	+52	—70
Births, corrected and equalized to months of uniform length.....	49,817	3,941	4,321	4,432	4,412	4,274	4,052	4,230	4,492	4,352	3,918	3,631	3,782

• Excluding 30 births in unknown month.

The subject of the relation of the marriages to the births may be studied in Table III. and Exhibit E. It is interesting to note that with only four exceptions there were more than the average number of marriages solemnized in those months in which more than the average number of conceptions occurred. Another fact relating to this subject may be noted here, that a majority of the conceptions occur in the months beginning with October and ending with March. During that period of the year, in certain classes, the families are more united than in the other months and this may account for much of the difference.

TABLE III.—*Exhibiting the Relation between the Births Returned as having occurred in Michigan during the Year 1881, and the Marriages solemnized in the Months of the Years 1880 and 1881, in which the Conceptions probably occurred. (Births and Marriages in unknown month excluded.)*

BIRTHS RETURNED AS HAVING OCCURRED IN 1881, EQUALIZED TO MONTHS OF 30.44 DAYS EACH, IN ORDER BY NUMBER, GREATEST FIRST.					Number of Marriages from April, 1880, to March, 1881, equalized to Months of 30.44 days each. <sup>b</sup>
BIRTHS. <sup>a</sup>		CONCEPTIONS.			
Year and Months.	Number.	Months.	Year.		
Year .....	34,780	.....	.....	14,746	
More than the Av. No. of Births.	August.....	3,254	November .....	1880	1,612
	September.....	3,251	December.....	1880	1,521
	December.....	3,122	March .....	1881	1,134
	October .....	3,023	January..... <sup>c</sup>	1881	1,141
	July.....	2,973	October.....	1880	1,433
	November.....	2,896	February..... <sup>c</sup>	1881	1,151
Average .....	2,894	.....	.....	1,229	
Less than the Av. No. of Births.	April.....	2,846	July.....	1880	1,112
	May.....	2,835	August.....	1880	1,037
	March.....	2,784	June.....	1880	1,033
	June.....	2,752	September..... <sup>c</sup>	1880	1,393
	February.....	2,644	May.....	1880	1,020
	January.....	2,350	April.....	1880	1,159

<sup>a</sup> Excluding 30 births in unknown month, and including 11 gained in equalizing, making the number shown for the year 19 less than the number of births returned.

<sup>b</sup> Corrected up to February 8, 1883.

<sup>c</sup> Exceptions to the statement that *more* than the average number of conceptions appear for months in which *more* than the average number of marriages were solemnized, and *less* than the average number of conceptions in months in which *less* than the average number of marriages were solemnized.



BIT 3.—*Births in Michigan during the Year 1881, Corrected for Omissions in Enumerating and Equalized for Months of a uniform length of 30.44 Days each. (Still-births and Children of unknown Sex included.)*

MONTHS, 1881.													
TOTAL.	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
Births, if enumerated in months of occurrence.....	49,770	4,013	3,975	4,311	4,348	4,333	3,974	4,308	4,375	4,330	3,980	3,679	3,832
Days and hundredths by which the months should be increased or diminished to equalize them to months of uniform length.....	—	—	—	—	—	—	—	—	—	—	—	—	—
Number of births added or subtracted to equalize them to months of uniform length.....	—	—56	+2.41	—55	+44	—50	+44	—56	+41	—56	+44	—56	—70
	+47	—72	+316	—82	+64	—79	+58	—83	+63	—72	+82	—70	—
Births, corrected and equalized to months of uniform length.....	49,917	3,941	4,321	4,432	4,412	4,374	4,053	4,370	4,402	4,352	3,918	3,631	3,783

\* Excluding 30 births in unknown month.

The subject of the relation of the marriages to the births may be studied in Table III. and Exhibit E. It is interesting to note that with only four exceptions there were more than the average number of marriages solemnized in those months in which more than the average number of conceptions occurred. Another fact relating to this subject may be noted here, that a majority of the conceptions occur in the months beginning with October and ending with March. During that period of the year, in certain classes, the families are more united than in the other months and this may account for much of the difference.

TABLE III.—*Exhibiting the Relation between the Births Returned as having occurred in Michigan during the Year 1881, and the Marriages solemnized in the Months of the Years 1880 and 1881, in which the Conceptions probably occurred. (Births and Marriages in unknown month excluded.)*

BIRTHS RETURNED AS HAVING OCCURRED IN 1881, EQUALIZED TO MONTHS OF 30.44 DAYS EACH, IN ORDER BY NUMBER, GREATEST FIRST.					Number of Marriages from April, 1880, to March, 1881, equalized to Months of 30.44 days each. <sup>b</sup>
BIRTHS. <sup>a</sup>		CONCEPTIONS.			
Year and Months.	Number.	Months.	Year.		
Year .....	34,730	.....	.....		14,746
More than the Av. No. of Births.	August.....	3,254	November .....	1880	1,612
	September.....	3,251	December.....	1880	1,521
	December.....	3,122	March..... <sup>c</sup>	1881	1,134
	October .....	3,023	January..... <sup>c</sup>	1881	1,141
	July.....	2,973	October.....	1880	1,433
	November.....	2,896	February..... <sup>c</sup>	1881	1,151
Average .....	2,894	.....	.....		1,229
Less than the Av. No. of Births.	April.....	2,846	July.....	1880	1,112
	May.....	2,835	August.....	1880	1,037
	March.....	2,784	June.....	1880	1,033
	June.....	2,752	September..... <sup>c</sup>	1880	1,393
	February.....	2,644	May.....	1880	1,020
	January .....	2,350	April.....	1880	1,159

<sup>a</sup> Excluding 30 births in unknown month, and including 11 gained in equalizing, making the number shown for the year 19 less than the number of births returned.

<sup>b</sup> Corrected up to February 8, 1883.

<sup>c</sup> Exceptions to the statement that *more* than the average number of conceptions appear for months in which *more* than the average number of marriages were solemnized, and *less* than the average number of conceptions in months in which *less* than the average number of marriages were solemnized.

Exhibit E. is similar in plan to Table III. only in the former the births are corrected for omissions in the enumeration. In the exhibit there are five exceptions to the general proposition.

**EXHIBIT E.—***The Relation between the Births in Michigan during the Year 1881, Corrected for Omissions in Enumerating, and the Marriages solemnized in the Months of the Years 1880 and 1881, in which the Conceptions probably occurred. (Births and Marriages in unknown Month excluded.)*

BIRTHS IN 1881, CORRECTED AS IF ENUMERATED IN MONTHS OF OCCURRENCE, AND EQUALIZED TO MONTHS OF UNIFORM LENGTH, IN ORDER BY NUMBER, GREATEST FIRST.					No. of Marriages from April, 1880, to March, 1881, equalized to Months of 30.44 Days each. <sup>b</sup>
BIRTHS. <sup>a</sup>		CONCEPTIONS.			
Year and Months.	Number.	Months.	Year.		
Year .....	a 49,817				14,746
More than the Av. No. of Births.	August .....	4,492	November .....	1880	1,612
	March .....	4,453	June .....	1880	1,033
	April .....	4,412	July .....	1880	1,112
	September .....	4,352	December .....	1880	1,521
	February .....	4,321	May .....	1880	1,030
	May .....	4,274	August .....	1880	1,037
	July .....	4,230	October .....	1880	1,433
Average .....	4,151				1,229
Less than the Av. No. of Births.	June .....	4,032	September .....	1880	1,303
	January .....	3,941	April .....	1880	1,159
	October .....	3,918	January .....	1881	1,141
	December .....	3,782	March .....	1881	1,134
	November .....	3,631	February .....	1881	1,151

<sup>a</sup> Unknown month excluded.

<sup>b</sup> Corrected, for additional returns, up to Feb. 8, 1883.

<sup>c</sup> Exceptions to the statement that *more* than the average number of conceptions appear for months in which *more* than the average number of marriages were solemnized, and *less* than the average number of conceptions in months in which *less* than the average number of marriages were solemnized.

**TABLE IV.**—*Exhibiting, by Counties and by Sex, the Number of Children Returned as having been born in Michigan during the Year, and in each Month of the Year ending December 31, 1881. (Still-births included.)*

STATE AND COUNTIES.	SEX.	YEAR, 1881.	MONTHS, 1881.												
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.
State.....	Total.....	34,749	2393	2432	2835	2805	2887	2712	3027	3313	3204	3078	2854	3179	30
	Males.....	17,941	1262	1246	1456	1503	1469	1412	1573	1683	1631	1624	1436	1630	16
	Females.....	16,747	1128	1179	1378	1301	1413	1296	1447	1625	1568	1451	1410	1540	13
	Unknown.....	61	3	7	3	1	5	4	7	5	5	3	8	9	1
Alcona.....	Total.....	42	1	3	1	6	3	3	4	6	8	1	2	4	---
	Males.....	15	1	1	1	2	1	1	2	2	3	---	1	---	---
	Females.....	27	---	2	---	4	2	2	2	4	5	1	1	4	---
Allegan.....	Total.....	830	47	54	70	66	72	67	77	103	70	69	65	70	---
	Males.....	427	31	27	38	34	29	33	41	52	32	36	37	37	---
	Females.....	401	16	27	31	31	43	34	36	51	38	33	28	33	---
	Unknown.....	2	---	---	1	1	---	---	---	---	---	---	---	---	---
Alpena.....	Total.....	226	10	16	13	19	25	25	15	17	15	14	26	31	---
	Males.....	113	5	9	3	8	13	14	6	10	10	7	12	16	---
	Females.....	113	5	7	10	11	12	11	9	7	5	7	14	15	---
Antrim.....	Total.....	140	14	10	14	13	14	10	14	9	14	7	9	12	---
	Males.....	77	10	7	5	7	8	4	9	5	4	5	4	9	---
	Females.....	63	4	3	9	6	6	6	5	4	10	2	5	3	---
Baraga.....	Total.....	55	1	3	6	7	7	5	6	2	2	6	7	3	---
	Males.....	27	1	1	3	5	4	4	2	---	1	4	1	1	---
	Females.....	28	---	2	3	2	3	1	4	2	1	2	6	2	---
Barry.....	Total.....	480	32	30	32	40	40	40	46	46	49	41	36	48	---
	Males.....	232	18	19	13	19	18	20	20	24	22	15	18	26	---
	Females.....	248	14	11	19	21	22	20	26	22	27	26	18	22	---
Bay.....	Total.....	1,160	97	80	104	77	75	93	105	108	98	100	99	124	---
	Males.....	626	59	46	51	50	43	55	55	46	56	57	45	63	---
	Females.....	534	38	34	53	27	32	38	50	62	42	43	54	61	---
Benzie.....	Total.....	108	8	11	9	10	11	7	7	12	8	8	5	12	---
	Males.....	55	4	2	5	7	5	4	2	8	6	4	3	5	---
	Females.....	53	4	9	4	3	6	3	5	4	2	4	2	7	---
Berrien.....	Total.....	618	59	47	44	52	59	51	58	54	41	68	51	33	1
	Males.....	331	26	27	26	27	36	27	33	27	22	35	29	16	---
	Females.....	287	33	20	18	25	23	24	25	27	19	33	22	17	1

\* Except of counties and townships not represented by returns of births in 1881.

TABLE IV.—CONTINUED.—*Births by Counties, by Months, and by Sex.*

COUNTIES.	Sex.	YEAR, 1881.	MONTHS, 1881.												
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.
Branch	Total	410	21	33	38	26	36	42	30	44	39	43	34	24	---
	Males	200	10	17	21	10	17	15	21	19	16	24	17	13	---
	Females	210	11	16	17	16	19	27	9	25	23	19	17	11	---
Calhoun	Total	547	31	35	42	45	45	43	62	40	56	48	37	54	---
	Males	290	21	22	23	25	17	23	33	26	33	25	23	28	---
	Females	243	10	12	19	20	27	19	28	23	23	23	13	26	---
	Unknown	5	---	1	---	---	1	1	1	---	---	---	1	---	---
Cass	Total	338	12	36	14	25	25	24	42	36	43	32	17	33	1
	Males	159	3	13	7	12	10	13	26	21	21	13	6	13	1
	Females	179	9	23	7	11	15	11	16	15	22	19	11	20	---
Charlevoix	Total	125	5	10	14	11	10	14	10	10	17	6	5	13	---
	Males	61	2	2	8	4	7	4	7	5	10	3	---	9	---
	Females	64	3	8	6	7	3	10	3	5	7	3	5	4	---
Cheboygan	Total	192	12	11	21	14	24	17	15	18	13	21	14	12	---
	Males	97	8	3	13	7	10	7	7	8	7	12	6	9	---
	Females	95	4	8	8	7	14	10	8	10	6	9	8	3	---
Chippewa	Total	65	5	8	6	6	2	4	7	5	6	6	8	2	---
	Males	30	1	5	2	5	---	3	3	3	4	5	7	1	---
	Females	20	4	3	4	1	2	1	4	2	2	1	1	1	---
Clare	Total	84	3	6	4	9	6	7	13	4	10	15	2	5	---
	Males	46	2	3	3	4	4	3	7	2	5	8	2	3	---
	Females	38	1	3	1	5	2	4	6	2	5	7	---	2	---
Clinton	Total	442	25	24	34	31	34	37	39	43	49	39	42	41	---
	Males	217	14	14	18	16	16	19	18	23	24	18	20	17	---
	Females	225	11	10	16	15	22	18	21	20	25	21	22	24	---
Crawford	Total	29	---	2	1	5	4	1	3	3	3	2	2	2	1
	Males	13	---	---	1	4	2	---	2	2	---	2	---	---	---
	Females	16	---	2	---	1	2	1	1	1	3	---	2	2	1
Delta	Total	190	16	13	20	24	15	20	18	14	23	9	13	14	---
	Males	83	5	7	9	12	6	7	9	7	7	6	2	6	---
	Females	116	11	6	11	12	9	13	9	7	16	3	11	8	---
Eaton	Total	608	38	43	53	57	42	42	50	64	47	55	55	53	---
	Males	320	19	24	28	32	20	23	26	30	27	34	24	33	---
	Females	287	19	19	25	25	22	19	33	34	20	21	30	20	---
	Unknown	1	---	---	---	---	---	---	---	---	---	---	1	---	---



TABLE IV.—CONTINUED.—*Births by Counties, by Months, and by Sex.*

COUNTIES.	SEX.	YEAR, 1881.	MONTHS, 1881.												
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.
Emmet.....	Total.....	134	8	17	14	8	11	8	21	13	9	8	8	9	---
	Males.....	66	6	8	9	3	6	3	12	4	5	3	4	3	---
	Females.....	68	2	9	5	5	5	5	9	9	4	5	4	6	---
Genesee.....	Total.....	663	49	53	53	56	54	59	66	59	73	40	39	62	---
	Males.....	316	23	29	30	29	25	26	25	31	34	23	13	28	---
	Females.....	347	26	24	23	27	29	33	41	28	39	17	26	34	---
Gladwin.....	Total.....	12	---	1	1	1	2	1	1	---	2	2	---	1	---
	Males.....	6	---	1	---	---	1	---	---	---	2	1	---	1	---
	Females.....	5	---	---	1	1	---	1	1	---	---	1	---	---	---
	Unknown.....	1	---	---	---	---	1	---	---	---	---	---	---	---	---
Grand Traverse.....	Total.....	127	12	5	11	13	12	13	8	14	14	10	3	12	---
	Males.....	66	5	3	5	7	9	5	6	5	7	5	1	8	---
	Females.....	61	7	2	6	6	3	8	2	9	7	5	2	4	---
Gratiot.....	Total.....	568	25	27	45	45	47	46	54	57	55	59	48	60	---
	Males.....	287	10	10	17	24	22	29	29	30	31	31	25	29	---
	Females.....	280	15	16	28	21	25	17	25	27	24	28	23	31	---
	Unknown.....	1	---	1	---	---	---	---	---	---	---	---	---	---	---
Hillsdale.....	Total.....	461	24	36	19	35	54	44	47	53	48	38	31	32	2
	Males.....	221	13	16	9	20	28	14	18	26	18	19	18	22	---
	Females.....	240	11	20	10	15	26	30	29	27	30	17	13	10	2
Houghton.....	Total.....	705	47	65	57	49	64	60	65	59	79	71	74	75	---
	Males.....	391	23	44	32	29	28	28	29	23	43	39	36	37	---
	Females.....	374	24	21	25	20	36	32	36	36	36	32	38	38	---
Huron.....	Total.....	516	46	35	37	55	59	43	37	44	41	62	44	43	---
	Males.....	264	16	13	16	29	31	19	18	25	21	33	23	20	---
	Females.....	281	30	22	21	26	28	24	19	19	20	29	21	22	---
	Unknown.....	1	---	---	---	---	---	---	---	---	---	---	---	1	---
Ingham.....	Total.....	529	40	43	36	39	48	35	41	47	48	46	54	49	---
	Males.....	249	21	16	14	18	23	13	27	22	24	17	25	23	---
	Females.....	279	19	27	22	21	25	16	17	25	24	29	28	26	---
	Unknown.....	1	---	---	---	---	---	---	---	---	---	---	1	---	---
Ionia.....	Total.....	615	27	33	50	47	62	55	62	57	67	54	44	57	---
	Males.....	330	13	17	27	25	30	33	38	26	33	31	25	32	---
	Females.....	284	14	16	23	22	32	21	24	31	34	23	19	25	---
	Unknown.....	1	---	---	---	---	---	1	---	---	---	---	---	---	---
Iosco.....	Total.....	198	14	12	14	17	22	21	16	19	21	14	8	20	---
	Males.....	98	8	9	5	5	10	10	10	8	13	3	4	13	---
	Females.....	100	6	3	9	12	12	11	6	11	8	11	4	7	---

TABLE IV.—CONTINUED.—*Births by Counties, by Months, and by Sex.*

COUNTIES.	SEX.	YEAR, 1881.	MONTHS, 1881.												
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.
Isabella.....	Total .....	374	16	29	47	28	43	33	22	33	33	31	37	22	....
	Males .....	178	6	14	24	12	19	10	10	14	20	18	17	9	....
	Females .....	201	10	15	23	16	24	23	12	19	18	13	20	13	....
Isle Royal.....															
Jackson.....	Total .....	816	48	56	61	58	79	57	38	68	38	68	90	70	....
	Males .....	412	24	24	31	34	33	32	38	35	45	41	46	29	....
	Females .....	404	24	32	30	24	46	25	47	31	43	27	34	41	....
Kalamazoo.....	Total .....	565	56	48	42	48	35	35	43	59	55	48	51	45	....
	Males .....	306	32	29	18	21	17	21	22	34	29	32	23	28	....
	Females .....	259	24	19	24	27	18	14	21	25	26	16	28	17	....
Kalkaska.....	Total .....	88	5	6	8	4	11	11	7	9	7	5	10	5	....
	Males .....	46	2	4	4	2	5	5	4	8	2	1	8	1	....
	Females .....	42	3	2	4	2	6	6	3	1	5	4	2	4	....
Kent.....	Total .....	1,714	117	124	141	121	147	127	137	139	170	182	148	189	2
	Males .....	855	58	53	76	57	76	65	67	75	82	100	68	73	....
	Females .....	857	59	66	65	64	71	62	69	64	88	81	80	86	2
	Unknown .....	2							1			1			
Keweenaw.....	Total .....	308	35	20	21	28	30	27	34	26	24	18	21	24	....
	Males .....	175	19	15	12	17	15	18	19	16	12	8	12	12	....
	Females .....	132	16	5	8	11	15	9	15	10	12	10	9	12	....
	Unknown .....	1			1										
Lake.....	Total .....	83	4	5	9	2	8	4	6	8	15	5	7	10	....
	Males .....	39	2	3	5	2	3	1	5	5	3	1	4	5	....
	Females .....	44	2	2	4		5	3	1	3	12	4	3	5	....
Lapeer.....	Total .....	550	34	49	44	46	44	44	35	72	54	36	30	62	....
	Males .....	291	20	25	24	26	25	24	13	41	28	16	15	34	....
	Females .....	257	14	23	20	20	19	20	22	31	25	20	15	28	....
	Unknown .....	2		1							1				
Leelanaw.....	Total .....	147	10	10	9	11	10	11	15	11	19	18	14	9	....
	Males .....	71	5	3	4	5	6	6	7	6	7	11	7	4	....
	Females .....	76	5	7	5	6	4	5	8	5	12	7	7	5	....
Lenawee.....	Total .....	707	65	61	57	52	54	43	59	68	60	73	49	64	2
	Males .....	355	37	31	29	28	26	20	29	25	35	36	25	33	1
	Females .....	350	28	29	28	24	28	23	30	43	25	37	24	30	1
	Unknown .....	2		1										1	....

\* No returns from county clerk.

TABLE IV.—CONTINUED.—*Births by Counties, by Months, and by Sex.*

COUNTIES.	Sex.	YEAR, 1881.	MONTHS, 1881.												
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.
Livingston.....	Total.....	428	30	31	36	31	33	30	33	36	44	43	43	32	---
	Males.....	226	16	15	17	17	19	14	20	14	21	26	25	22	---
	Females.....	202	14	16	19	14	14	16	19	22	23	17	18	10	---
Mackinac.....	Total.....	29	2	5	---	3	4	5	2	2	1	2	---	3	---
	Males.....	12	---	1	---	1	3	3	2	---	---	1	---	1	---
	Females.....	17	2	4	---	2	1	2	---	2	1	1	---	2	---
Macomb.....	Total.....	608	38	45	55	55	34	40	57	67	55	65	50	47	---
	Males.....	309	18	17	27	28	19	20	28	24	27	42	27	22	---
	Females.....	298	19	28	28	27	15	20	29	33	28	23	23	25	---
	Unknown.....	1	1	---	---	---	---	---	---	---	---	---	---	---	---
Manistee.....	Total.....	405	23	30	40	30	39	24	36	30	35	36	39	37	---
	Males.....	221	11	19	18	21	23	11	21	17	21	19	22	16	---
	Females.....	182	12	11	22	13	16	13	15	13	14	17	16	20	---
	Unknown.....	2	---	---	---	---	---	---	---	---	---	---	1	1	---
Manitou.....	Total.....	19	---	---	3	1	2	1	---	2	---	5	4	1	---
	Males.....	8	---	---	---	---	2	1	---	1	---	2	1	1	---
	Females.....	11	---	---	3	1	---	---	---	1	---	3	3	---	---
Marquette.....	Total.....	510	47	52	77	62	65	67	69	81	75	74	55	81	5
	Males.....	415	25	29	41	31	34	39	38	40	37	39	25	35	2
	Females.....	383	21	22	36	31	30	27	29	40	37	35	29	43	3
	Unknown.....	12	1	1	---	---	1	1	2	1	1	---	1	3	---
Mason.....	Total.....	234	11	19	21	24	19	25	17	37	9	16	14	21	1
	Males.....	111	6	5	10	15	8	12	9	12	6	11	6	11	---
	Females.....	123	5	14	11	9	11	13	8	25	3	5	8	10	1
Mecosta.....	Total.....	294	20	26	19	17	31	25	31	26	26	24	22	27	---
	Males.....	153	13	15	8	8	14	13	17	13	14	11	10	12	---
	Females.....	140	7	11	11	9	17	7	14	13	12	13	11	15	---
	Unknown.....	1	---	---	---	---	---	---	---	---	---	---	1	---	---
Menominee.....	Total.....	347	28	39	32	23	28	24	22	21	31	25	30	44	---
	Males.....	176	11	16	13	12	16	13	13	10	16	17	15	24	---
	Females.....	171	17	23	19	11	12	11	9	11	15	8	15	20	---
Midland.....	Total.....	163	8	9	13	17	24	18	17	13	7	11	6	15	---
	Males.....	83	1	4	8	10	15	9	8	7	2	8	4	7	---
	Females.....	79	7	5	9	7	9	9	9	6	5	3	2	8	---
	Unknown.....	1	---	---	1	---	---	---	---	---	---	---	---	---	---



BIRTHS BY COUNTIES, BY MONTHS, BY SEX.

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TABLE IV.—CONTINUED.—*Births by Counties, by Months, and by Sex.*

COUNTIES.	SEX.	YEAR, 1881.	MONTHS, 1881.											
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
Osceola	Total	279	16	10	21	32	24	32	26	34	22	23	15	24
	Males	157	8	6	8	25	12	20	12	20	11	14	9	12
	Females	122	8	4	13	7	12	12	14	14	11	9	6	12
Oscoda	Total	8					1	2	3	1			1	
	Males	4					1	1	1	1				
	Females	4						1	2				1	
Otsego	Total	50	1	3	2	4	6	7	5	4	5	5	3	5
	Males	34		1	2	3	4	5	4	4	3	3	2	3
	Females	16	1	2		1	2	2	1		2	2	1	2
Ottawa	Total	787	68	51	64	71	60	47	54	92	75	66	65	73
	Males	415	35	27	33	41	35	23	29	43	38	38	37	35
	Females	368	33	22	31	30	23	24	25	49	37	28	28	38
	Unknown	4		2			2							
Presque Isle	Total	124	5	7	15	15	9	8	14	14	5	7	14	11
	Males	58	3	5	5	8	4	3	6	8	2	3	5	6
	Females	66	2	2	10	7	5	5	8	6	3	4	9	5
Roscommon	Total	33	7	2	5	1	1	5	2	2	3	2	2	1
	Males	20	3	2	3	1	1	4	2	1	1	1		1
	Females	13	4		2			1		1	2	1	2	
Saginaw	Total	1,518	127	117	136	131	114	127	126	146	131	105	121	137
	Males	800	78	58	72	63	62	63	68	82	68	52	66	68
	Females	718	49	59	64	68	52	64	58	64	63	53	55	69
Sanilac	Total	680	43	51	56	60	75	58	48	68	68	59	51	52
	Males	346	21	28	30	28	45	29	27	34	29	25	24	26
	Females	342	22	23	26	32	30	29	21	34	39	33	27	26
	Unknown	1										1		
Schoolcraft	Total	16	2		2	1	1	2	3	3	1	1		
	Males	9	2		1		1	1	2	1	1			
	Females	7			1	1		1	1	2		1		
Shiawassee	Total	470	31	33	23	30	39	33	47	56	47	59	36	36
	Males	270	20	26	11	20	13	22	28	36	28	32	18	16
	Females	197	10	7	12	10	26	10	19	20	18	27	18	20
	Unknown	3	1					1			1			
St. Clair	Total	952	58	70	84	70	68	92	77	99	89	86	72	87
	Males	482	30	31	42	42	36	49	39	47	45	43	30	48
	Females	463	28	39	42	28	32	43	38	51	42	42	41	37
	Unknown	7								1	2	1	1	2





Table V. furnishes important data concerning the birth-rate and the proportion of the sexes among the different races of people. This table would be more valuable if the statistics concerning the population were more complete. As it is, we are unable to give the population, represented by the returns of births, by males and females of each color. No distinction is made between the Black and the Mulatto in the Census, and for this reason they should be studied together. It appears from "Per Cent. of Children Born to Inhabitants," that the birth-rate was a little greater than the average for all races among the Whites, and less than the average among the Indians and Black and Mulatto. The proportion of males for the year 1881 was greatest among the African race, and the proportion of female children was greatest among the Mulatto when studied separately, but when studied with the Black the proportion of females is smaller than among the White or Indian races.

In Table VI. can be studied the birth-rate in the different counties of the State, based upon the births in 1881 and the population in 1880, according to the U. S. Census for that year. As in previous reports, four propositions are made concerning the influence of the increase or decrease of the birth-rate upon the sex of the children born, which are as follows: 1, greater than average birth-rate, more than average proportion of males; 2, greater than average birth-rate, less than average proportion of males; 3, less than average birth-rate, less than average proportion of males; 4, less than average birth-rate, more than average proportion of males. In two counties there is no statement, but of the 77 remaining counties, the first proposition is true of 15 counties, the second is true of 23 counties, the third is true of 19 counties, and the fourth is true of 20 counties. The supposition that a *greater* than average birth-rate is attended with *less* than an average proportion of male children, and *vice versa* is true for 43 out of 77 counties in 1881. The opposite supposition, therefore, is true of the remaining 34 counties.

Table VI. also shows, by counties, the number of children born among the White, Black, Mulatto, and Indian races. The number returned as unknown color was 64, the majority of which were returned from the counties of Eaton and Kent.

**TABLE V.**—*Exhibiting, by Color and by Sex, the Number of Inhabitants of Michigan June 1, 1880, the Number of Children returned as having been born in the State during the Year 1881, the Per Cent of Children born in 1881 to Inhabitants in 1880, the Per Cent. of Children of each Sex to the Total Number of both Sexes, and the Number of Inhabitants to each Child born of the Same Color. Still-births included.)*

COLOR OR RACE.	SEX.	Population June 1, 1880, Represented by Births in 1881.	Children Born in 1881.	Per Cent. of births of each Color to total of all Colors, by Sex.	Per Cent. of Children Born to Inhabitants.	Per Cent. of each Sex to Children of both Sexes.	Inhabitants to One Child Born, by Color and Sex.
All Colors..	Total.....	1,629,635	34,749	100.00	2.13	-----	46.90
	Males.....	857,968	17,941	100.00	2.09	51.72	47.82
	Females..	771,687	16,747	100.00	2.17	48.28	46.08
	Unknown.....	-----	61	100.00	-----	-----	-----
White.....	Total.....	1,607,496	34,337	98.96	2.14	-----	46.76
	Males.....	-----	17,756	98.97	-----	51.70	-----
	Females..	-----	16,589	99.06	-----	48.30	-----
	Unknown.....	-----	42	68.85	-----	-----	-----
Black.....	Total.....	-----	119	.34	-----	-----	-----
	Males.....	-----	71	.40	-----	58.66	-----
	Females..	-----	48	.29	-----	40.34	-----
Mulatto.....	Total.....	-----	54	.24	-----	-----	-----
	Males.....	-----	40	.22	-----	47.62	-----
	Females..	-----	44	.26	-----	52.38	-----
Indian.....	Total.....	7,044	95	.97	1.35	-----	74.15
	Males.....	-----	51	.98	-----	53.68	-----
	Females..	-----	44	.96	-----	46.32	-----
Unk. color..	Total.....	-----	64	.18	-----	-----	-----
	Males.....	-----	23	.13	-----	51.11	-----
	Females..	-----	22	.13	-----	48.89	-----
Black and Mulatto.....	Total.....	15,087	203	.38	1.35	-----	74.32
	Males.....	-----	111	.62	-----	54.65	-----
	Females..	-----	92	.35	-----	45.35	-----

\* Includes 26 Asiatics.

TABLE VI.—*Exhibiting for the State and Counties of Michigan, by Sex, the Population in 1880, the Per Cent. of Births in 1881 to Population in 1880, the Number of Males to 100 Females born during the Year 1881, and, by Sex and by Color, the Number of Children Born during the Year 1881. (Still-births included.)*

STATE AND COUNTIES.	Births, Males to 100 Females.	SEX.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1880 Rep- resented by Births in 1881.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR,—CHILDREN BORN IN 1881.					
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.	Unk.
State .....	107	Total .....		1,629,655	2.13	34,749	34,387	b 119	84	c 95	
		Males .....	51.72	857,968	2.09	17,941	17,756	71	40	51	23
		Females ..	48.28	771,687	2.17	16,747	16,589	48	44	44	22
		Unknown ..				61	42				19
Alcona .....	56	Total .....		3,107	1.35	42	42				
		Males .....	35.71	1,945	.77	15	15				
		Females ..	64.29	1,162	2.32	27	27				
Allegan .....	106	Total .....		37,815	2.19	830	828			2	
		Males .....	51.57	19,732	2.16	427	426			1	
		Females ..	48.43	18,083	2.22	401	400			1	
		Unknown ..				2	2				
Alpena .....	100	Total .....		8,789	2.57	226	224	2			
		Males .....	50.00	5,161	2.19	113	111	2			
		Females ..	50.00	3,628	3.11	113	113				
Antrim .....	122	Total .....		5,237	2.67	146	140				
		Males .....	55.00	2,867	2.69	77	77				
		Females ..	45.00	2,370	2.66	63	63				
Baraga .....	96	Total .....		1,804	3.05	55	39			d 16	
		Males .....	49.09	1,036	2.61	27	20			7	
		Females ..	50.91	768	3.65	28	19			9	
Barry .....	94	Total .....		25,317	1.90	480	480				
		Males .....	48.33	13,284	1.75	232	232				
		Females ..	51.67	12,033	2.06	248	248				
Bay .....	117	Total .....		38,081	3.05	1,160	1,158		2		
		Males .....	53.97	21,098	2.97	626	625		1		
		Females ..	46.03	16,983	3.14	534	533		1		
Benzie .....	104	Total .....		3,433	3.15	108	104	3	1		
		Males .....	50.93	1,862	2.95	55	51	3	1		
		Females ..	49.07	1,571	3.37	53	53				

<sup>a</sup> For counties and townships from which no returns of births were received, see Table XXI.

<sup>b</sup> 2 males and 1 female "Colored."

<sup>c</sup> 5 males and 6 females White and Indian.

<sup>d</sup> 2 males and 4 females White and Indian.

TABLE VI.—CONTINUED.—*Births by Counties, by Sex, and by Color.*

COUNTIES.	Births,— Males to 100 Females.	SEX.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1880 Rep- resented by Births in 1881.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR,—CHILDREN BORN IN 1881.					
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.	Unk.
Berrien.....	115	Total.....	-----	36,785	1.68	618	612	3	3	-----	-----
		Males.....	53.56	18,505	1.76	331	327	2	2	-----	-----
		Females..	40.44	17,930	1.60	287	285	1	1	-----	-----
Branch.....	95	Total.....	-----	27,941	1.47	410	400	1	-----	-----	-----
		Males.....	48.78	14,240	1.40	200	199	1	-----	-----	-----
		Females..	51.22	13,701	1.53	210	210	-----	-----	-----	-----
Calhoun.....	123	Total.....	-----	38,452	1.42	547	534	6	1	-----	6
		Males.....	55.17	19,599	1.53	299	288	6	1	-----	4
		Females..	44.83	18,853	1.29	243	241	-----	-----	-----	2
		Unknown	-----	-----	-----	5	5	-----	-----	-----	-----
Cass.....	89	Total.....	-----	22,009	1.54	338	309	8	21	-----	-----
		Males.....	47.04	11,330	1.40	159	149	3	7	-----	-----
		Females..	52.96	10,659	1.63	179	160	5	14	-----	-----
Charlevoix..	95	Total.....	-----	4,117	3.04	125	116	1	-----	8	-----
		Males.....	48.80	2,200	2.77	61	56	1	-----	4	-----
		Females..	51.20	1,917	3.34	64	60	-----	-----	4	-----
Cheboygan..	102	Total.....	-----	6,524	2.94	192	191	-----	-----	1	-----
		Males.....	50.52	3,760	2.58	97	97	-----	-----	-----	-----
		Females..	49.48	2,764	3.44	95	94	-----	-----	1	-----
Chippewa....	150	Total.....	-----	4,777	1.36	65	59	-----	-----	6	-----
		Males.....	60.00	2,621	1.49	39	35	-----	-----	4	-----
		Females..	40.00	2,156	1.21	26	24	-----	-----	2	-----
Clare.....	121	Total.....	-----	4,157	2.01	84	84	-----	-----	-----	-----
		Males.....	54.76	2,793	1.64	46	46	-----	-----	-----	-----
		Females..	45.24	1,394	2.73	38	38	-----	-----	-----	-----
Clinton.....	96	Total.....	-----	23,100	1.57	442	441	-----	1	-----	-----
		Males.....	49.10	14,657	1.48	217	217	-----	-----	-----	-----
		Females..	50.90	13,443	1.67	225	224	-----	1	-----	-----
Crawford....	81	Total.....	-----	1,159	2.50	29	29	-----	-----	-----	-----
		Males.....	44.83	633	1.90	13	13	-----	-----	-----	-----
		Females..	55.17	476	3.36	16	16	-----	-----	-----	-----
Delta.....	72	Total.....	-----	6,812	2.92	199	199	-----	-----	-----	-----
		Males.....	41.71	4,172	1.99	83	83	-----	-----	-----	-----
		Females..	58.29	2,640	4.39	116	116	-----	-----	-----	-----

\* 2 males and 1 female White and Indian.

TABLE VI.—CONTINUED.—*Births by Counties, by Sex, and by Color.*

COUNTIES.	Births,— Males to 100 Females.	Sex.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1880 Rep- resented by Births in 1881.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR,—CHILDREN BORN IN 1881.					
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.	Unk.
Eaton .....	111	Total .....	.....	31,225	1.95	608	584	1	.....	.....	23
		Males .....	52.72	16,072	1.99	320	306	1	.....	.....	13
		Females .....	47.28	15,153	1.89	287	277	.....	.....	.....	10
		Unknown .....	.....	.....	.....	1	1	.....	.....	.....	.....
Emmet .....	97	Total .....	.....	6,639	2.02	134	102	.....	1	a 31	.....
		Males .....	40.25	3,514	1.86	66	48	.....	1	17	.....
		Females .....	50.75	3,095	2.20	68	54	.....	.....	14	.....
Genesee.....	91	Total .....	.....	39,220	1.69	663	657	4	2	.....	.....
		Males .....	47.66	20,042	1.58	316	313	2	1	.....	.....
		Females .....	52.34	19,178	1.81	347	344	2	1	.....	.....
Gladwin .....	120	Total .....	.....	611	1.96	12	12	.....	.....	.....	.....
		Males .....	54.55	417	1.44	6	6	.....	.....	.....	.....
		Females .....	45.45	194	2.58	5	5	.....	.....	.....	.....
		Unknown .....	.....	.....	.....	1	1	.....	.....	.....	.....
G. Traverse ..	108	Total .....	.....	8,422	1.51	127	127	.....	.....	.....	.....
		Males .....	51.97	4,608	1.43	66	66	.....	.....	.....	.....
		Females .....	48.03	3,814	1.60	61	61	.....	.....	.....	.....
Gratiot .....	103	Total .....	.....	21,936	2.59	568	568	.....	.....	.....	.....
		Males .....	50.62	11,687	2.46	287	287	.....	.....	.....	.....
		Females .....	49.38	10,249	2.73	280	280	.....	.....	.....	.....
		Unknown .....	.....	.....	.....	1	1	.....	.....	.....	.....
Hillsdale....	92	Total .....	.....	32,723	1.41	461	461	.....	.....	.....	.....
		Males .....	47.94	16,544	1.34	221	221	.....	.....	.....	.....
		Females .....	52.06	16,179	1.48	240	240	.....	.....	.....	.....
Houghton...	105	Total .....	.....	22,478	3.40	765	761	1	1	2	.....
		Males .....	51.11	12,242	3.19	391	388	1	1	1	.....
		Females .....	48.89	10,231	3.66	374	373	.....	.....	1	.....
Huron .....	94	Total .....	.....	20,069	2.72	546	546	.....	.....	.....	.....
		Males .....	48.44	10,714	2.46	264	264	.....	.....	.....	.....
		Females .....	51.56	9,375	3.00	281	281	.....	.....	.....	.....
		Unknown .....	.....	.....	.....	1	1	.....	.....	.....	.....
Ingham .....	89	Total .....	.....	33,676	1.57	529	521	.....	7	.....	1
		Males .....	47.16	17,399	1.43	249	245	.....	4	.....	.....
		Females .....	52.84	16,277	1.71	279	276	.....	3	.....	.....
		Unknown .....	.....	.....	.....	1	.....	.....	.....	.....	1

a 1 female, White and Indian.



TABLE VI.—CONTINUED.—*Births by Counties, by Sex, and by Color.*

COUNTY	Births,— Males to 100 Females.	SEX.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1880 Rep- resented by Births in 1881.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR,—CHILDREN BORN IN 1881.					
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.	Unk.
Alcona	116	Total.....		33,872	1.82	615	614	-----	-----	-----	1
		Males.....	53.75	17,974	1.84	330	330	-----	-----	-----	-----
		Females..	46.25	15,898	1.79	284	284	-----	-----	-----	-----
		Unknown				1	-----	-----	-----	-----	1
Antrim	98	Total.....		6,873	2.88	198	198	-----	-----	-----	-----
		Males.....	49.49	4,087	2.39	98	98	-----	-----	-----	-----
		Females..	50.51	2,776	3.60	100	100	-----	-----	-----	-----
		Unknown					-----	-----	-----	-----	-----
Isabella.....	86	Total.....		12,159	3.08	374	267	-----	-----	7	-----
		Males.....	46.26	6,602	2.62	173	169	-----	-----	4	-----
		Females..	53.74	5,557	3.62	201	198	-----	-----	3	-----
		Unknown					-----	-----	-----	-----	-----
<hr/>											
Jackson.....	102	Total.....		42,031	1.94	816	811	3	2	-----	-----
		Males.....	50.49	21,833	1.59	412	410	1	1	-----	-----
		Females..	49.51	20,198	2.00	404	401	2	1	-----	-----
		Unknown					-----	-----	-----	-----	-----
Kalamazoo..	118	Total.....		34,342	1.65	565	553	7	-----	-----	-----
		Males.....	54.16	17,343	1.76	306	302	4	-----	-----	-----
		Females..	45.84	16,999	1.52	259	256	3	-----	-----	-----
		Unknown					-----	-----	-----	-----	-----
Kalkaska...	110	Total.....		2,987	3.00	83	83	-----	-----	-----	-----
		Males.....	52.27	1,617	2.84	46	46	-----	-----	-----	-----
		Females..	47.73	1,320	3.18	42	42	-----	-----	-----	-----
		Unknown					-----	-----	-----	-----	-----
Kent.....	100	Total.....		78,253	2.34	1,714	1,689	7	1	-----	17
		Males.....	49.04	38,014	2.25	855	843	6	-----	-----	6
		Females..	50.06	35,239	2.43	857	845	1	1	-----	10
		Unknown				2	1	-----	-----	-----	1
Keweenaw..	133	Total.....		4,270	7.21	308	308	-----	-----	-----	-----
		Males.....	57.00	2,396	7.30	175	175	-----	-----	-----	-----
		Females..	43.00	1,874	7.04	132	132	-----	-----	-----	-----
		Unknown				1	1	-----	-----	-----	-----
Lake.....	89	Total.....		3,233	2.57	83	82	-----	-----	1	-----
		Males.....	46.99	1,941	2.01	39	38	-----	-----	1	-----
		Females..	53.01	1,292	3.41	44	44	-----	-----	-----	-----
		Unknown					-----	-----	-----	-----	-----
Leelanau.....	113	Total.....		30,138	1.82	550	548	-----	2	-----	-----
		Males.....	53.10	15,627	1.84	291	289	-----	2	-----	-----
		Females..	46.90	14,311	1.80	257	257	-----	-----	-----	-----
		Unknown				2	2	-----	-----	-----	-----

\* from county clerk to State Department.



TABLE VI.—CONTINUED.—*Births by Counties, by Sex, and by Color.*

COUNTIES.	Births,— Males to 100 Females.	SEX.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1880 Rep- resented by Births in 1881.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR,—CHILDREN BORN IN 1881.					
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.	Unk.
Leelanaw...	93	Total.....	.....	6,253	2.35	147	143	2	.....	2	.....
		Males.....	48.29	3,388	2.10	71	68	2	.....	1	.....
		Females..	51.71	2,865	2.65	76	75	.....	.....	1	.....
Lenawee....	101	Total.....	.....	48,343	1.46	707	702	3	2	.....	.....
		Males.....	50.35	24,581	1.46	355	351	3	1	.....	.....
		Females..	49.65	24,062	1.45	350	349	.....	1	.....	.....
		Unknown.....	.....	.....	.....	2	2	.....	.....	.....	.....
Livingston..	112	Total.....	.....	22,251	1.92	428	426	2	.....	.....	.....
		Males.....	52.80	11,620	1.94	226	226	.....	.....	.....	.....
		Females..	47.20	10,631	1.90	202	200	2	.....	.....	.....
Mackinac....	71	Total.....	.....	2,468	1.18	29	29	.....	.....	.....	.....
		Males.....	41.38	1,395	.86	12	12	.....	.....	.....	.....
		Females..	58.62	1,073	1.58	17	17	.....	.....	.....	.....
Macomb.....	104	Total.....	.....	31,627	1.92	608	606	2	.....	.....	.....
		Males.....	50.91	16,157	1.91	309	309	.....	.....	.....	.....
		Females..	49.09	15,470	1.93	298	296	2	.....	.....	.....
		Unknown.....	.....	.....	.....	1	1	.....	.....	.....	.....
Manistee....	121	Total.....	.....	12,532	3.23	405	405	.....	.....	.....	.....
		Males.....	54.84	6,969	3.17	221	221	.....	.....	.....	.....
		Females..	45.16	5,563	3.27	182	182	.....	.....	.....	.....
		Unknown.....	.....	.....	.....	2	2	.....	.....	.....	.....
Manitou.....	73	Total.....	.....	1,334	1.42	19	19	.....	.....	.....	.....
		Males.....	42.11	718	1.11	8	8	.....	.....	.....	.....
		Females..	57.89	616	1.78	11	11	.....	.....	.....	.....
Marquette..	108	Total.....	.....	24,644	3.29	810	799	2	.....	.....	9
		Males.....	52.01	14,320	2.90	415	415	.....	.....	.....	.....
		Females..	47.99	10,324	3.71	383	381	2	.....	.....	.....
		Unknown.....	.....	.....	.....	12	3	.....	.....	.....	9
Mason.....	90	Total.....	.....	9,925	2.36	234	233	.....	.....	1	.....
		Males.....	47.44	5,575	1.99	111	111	.....	.....	.....	.....
		Females..	52.56	4,350	2.83	123	122	.....	.....	1	.....
Mecosta....	109	Total.....	.....	13,973	2.10	294	290	3	.....	1	.....
		Males.....	52.22	7,626	2.01	153	152	1	.....	.....	.....
		Females..	47.78	6,347	2.21	140	137	2	.....	1	.....
		Unknown.....	.....	.....	.....	1	1	.....	.....	.....	.....

TABLE VI.—CONTINUED.—*Births by Counties, by Sex, and by Color.*

COUNTY.	Births,-- Males to 100 Females.	SEX.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1880 Rep- resented by Births in 1881.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR,—CHILDREN BORN IN 1881.				
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.
Menominee	103	Total .....	.....	11,987	2.89	347	346	.....	.....	* 1
		Males .....	50.72	8,000	2.20	176	175	.....	.....	1
		Females .....	49.28	3,987	4.29	171	171	.....	.....	.....
Midland	103	Total .....	.....	6,893	2.36	163	163	.....	.....	.....
		Males .....	51.23	3,780	2.20	83	83	.....	.....	.....
		Females .....	48.77	3,113	2.54	79	79	.....	.....	.....
Missaukee	100	Unknown .....	.....	.....	.....	1	1	.....	.....	.....
		Total .....	.....	1,533	3.93	61	61	.....	.....	.....
		Males .....	50.00	942	3.18	30	30	.....	.....	.....
Monroe	113	Females .....	50.00	611	4.91	30	30	.....	.....	.....
		Unknown .....	.....	.....	.....	1	1	.....	.....	.....
		Total .....	.....	22,624	2.17	731	728	.....	3	.....
Muskegon	113	Males .....	52.24	17,254	2.79	227	204	.....	3	.....
		Females .....	47.76	16,274	2.76	344	344	.....	.....	.....
		Total .....	.....	31,708	1.76	496	493	.....	.....	1
Newaygo	120	Males .....	56.56	17,043	1.54	283	283	.....	.....	.....
		Females .....	43.44	14,721	2.43	202	202	.....	.....	.....
		Unknown .....	.....	.....	.....	1	.....	.....	.....	1
Ontonagon	204	Total .....	.....	.....	.....	2	2	.....	.....	.....
		Males .....	50.50	.....	.....	1	1	.....	.....	.....
		Females .....	49.50	.....	.....	1	1	.....	.....	.....
Oscoda	111	Total .....	.....	22,224	2.20	113	112	.....	.....	1
		Males .....	51.35	14,222	2.26	73	73	.....	.....	.....
		Females .....	48.65	14,222	2.14	40	39	.....	.....	.....
Shiawassee	111	Unknown .....	.....	.....	.....	1	.....	.....	.....	1
		Total .....	.....	22,224	2.20	113	112	.....	.....	1
		Males .....	51.35	14,222	2.26	73	73	.....	.....	.....
Tuscola	111	Females .....	48.65	14,222	2.14	40	39	.....	.....	.....
		Unknown .....	.....	.....	.....	1	.....	.....	.....	.....
		Total .....	.....	22,224	2.20	113	112	.....	.....	1
Washtenaw	111	Males .....	51.35	14,222	2.26	73	73	.....	.....	.....
		Females .....	48.65	14,222	2.14	40	39	.....	.....	.....
		Unknown .....	.....	.....	.....	1	.....	.....	.....	.....
Wayne	111	Total .....	.....	22,224	2.20	113	112	.....	.....	1
		Males .....	51.35	14,222	2.26	73	73	.....	.....	.....
		Females .....	48.65	14,222	2.14	40	39	.....	.....	.....

TABLE VI.—CONTINUED.—*Births by Counties, by Sex, and by Color.*

COUNTIES.	Births,— Males to 100 Females.	SEX.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1880 Rep- resented by Births in 1881.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR,—CHILDREN BORN IN 1881.				
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.
Ogemaw	171	Total		1,914	2.04	39	39			
		Males	63.16	1,168	2.05	24	24			
		Females	36.84	746	1.88	14	14			
		Unknown				1	1			
Ontonagon	104	Total		1,605	2.93	47	47			
		Males	51.06	837	2.87	24	24			
		Females	48.94	768	2.99	23	23			
Osceola	129	Total		10,777	2.59	279	279			
		Males	56.27	6,015	2.61	157	157			
		Females	43.73	4,762	2.56	122	122			
Oscoda	100	Total		467	1.71	8	8			
		Males	50.00	291	1.37	4	4			
		Females	50.00	176	2.27	4	4			
Otsego	213	Total		1,974	2.53	50	50			
		Males	68.00	1,137	2.99	34	34			
		Females	32.00	837	1.91	16	16			
Ottawa	113	Total		33,126	2.38	787	784	1	1	1
		Males	53.00	17,472	2.38	415	414	1		
		Females	47.00	15,654	2.35	368	367		1	
		Unknown				4	3			1
Presque Isle	88	Total		3,113	3.98	124	124			
		Males	46.77	1,701	3.41	58	58			
		Females	53.23	1,412	4.67	66	66			
Roscommon	154	Total		1,459	2.26	33	33			
		Males	60.61	1,096	1.82	20	20			
		Females	39.39	363	3.58	13	13			
Saginaw	111	Total		59,095	2.57	1,518	1,506	4	1	7
		Males	52.70	31,803	2.52	800	794	1		5
		Females	47.30	27,292	2.63	718	712	3	1	2
Sanilac	101	Total		26,341	2.62	689	689			
		Males	50.29	14,023	2.47	316	346			
		Females	49.71	12,318	2.78	342	342			
		Unknown				1	1			



TABLE VI.—CONTINUED.—*Births by Counties, by Sex, and by Color.*

COUNTIES.	Births,— Males to 100 Females.	SEX.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1880 Rep- resented by Births in 1881.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR.—CHILDREN BORN IN 1881.				
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.
Schoolcraft.	129	Total.....	-----	1,305	1.23	16	16	-----	-----	-----
		Males.....	56.25	923	.98	9	9	-----	-----	-----
		Females..	43.75	382	1.83	7	7	-----	-----	-----
Shiawassee..	137	Total.....	-----	27,059	1.74	470	470	-----	-----	-----
		Males.....	57.82	14,248	1.89	270	270	-----	-----	-----
		Females..	42.18	12,811	1.54	197	197	-----	-----	-----
		Unknown	-----	-----	-----	3	3	-----	-----	-----
St. Clair.....	104	Total.....	-----	46,197	2.06	952	949	3	-----	-----
		Males.....	51.01	23,922	2.01	482	480	2	-----	-----
		Females..	48.99	22,275	2.08	463	462	1	-----	-----
		Unknown	-----	-----	-----	7	7	-----	-----	-----
St. Joseph..	104	Total.....	-----	26,626	1.51	402	398	1	3	-----
		Males.....	51.00	13,516	1.52	205	205	-----	-----	-----
		Females..	49.00	13,110	1.50	197	193	1	3	-----
Tuscola.....	116	Total.....	-----	25,738	2.27	583	583	-----	-----	-----
		Males.....	53.69	13,644	2.29	313	313	-----	-----	-----
		Females..	46.31	12,094	2.15	270	270	-----	-----	-----
Van Buren..	113	Total.....	-----	30,807	1.66	512	497	4	9	2
		Males.....	53.03	15,757	1.72	271	264	1	6	-----
		Females..	46.97	15,050	1.59	240	232	3	3	2
		Unknown	-----	-----	-----	1	1	-----	-----	-----
Washtenaw.	116	Total.....	-----	41,848	1.48	619	607	8	4	-----
		Males.....	53.63	21,250	1.56	332	325	5	2	-----
		Females..	46.37	20,598	1.39	287	282	3	2	-----
Wayne.....	110	Total.....	-----	166,444	2.70	4,501	4,451	a 33	14	2
		Males.....	52.38	82,917	2.84	2,357	2,330	21	5	1
		Females..	47.62	83,527	2.57	2,143	2,121	12	9	1
		Unknown	-----	-----	-----	1	-----	-----	-----	1
Wexford.....	85	Total.....	-----	6,621	2.08	138	136	-----	-----	1
		Males.....	45.99	3,780	1.67	63	62	-----	-----	1
		Females..	54.01	2,841	2.60	74	74	-----	-----	-----
		Unknown	-----	-----	-----	1	-----	-----	-----	1

a 2 males and 1 female "Colored."

## PARENT-NATIVITY.

The facts on this important subject will be found in Tables VII., VIII., and Exhibit F. Table VII. shows the number and per cent. of children born of native, foreign, and mixed parentage in Michigan for the year 1881. These percentages vary slightly from year to year. It will be observed that 45.78 per cent. of all the children born during the year were those of native-born parents, and 33.27 per cent. were born of parents who were both foreign-born.

TABLE VII.—*Exhibiting, by Sex, by Number, and by Per Cent. of Total, the Parent-Nativity of Children Born in Michigan during the Year 1881, according to the Returns.*

NATIVITY OF PARENTS OF CHILDREN BORN, 1881.	TOTAL BIRTHS, 1881.							
	NUMBER.				PER CENT. OF TOTAL.			
	Total.	Males.	Females.	Unk.	Total.	Males.	Females.	Unk.
All Nativities .....	34,749	17,941	16,747	61	100.00	100.00	100.00	100.00
Both Parents Native .....	15,907	8,183	7,706	18	45.78	45.61	46.02	29.51
Both Parents Foreign .....	11,560	5,941	5,599	20	33.27	33.11	33.43	32.79
Foreign Father and Native Mother .....	4,078	2,136	1,937	5	11.74	11.91	11.57	8.20
Foreign Mother and Native Father .....	2,075	1,116	958	1	5.97	6.22	5.72	1.64
Unknown Mother, Father Native .....	188	95	91	2	.54	.53	.54	3.28
Unknown Mother, Father Foreign .....	165	73	91	1	.48	.41	.54	1.64
Unknown Father, Mother Native .....	240	114	125	1	.69	.64	.75	1.04
Unknown Father, Mother Foreign .....	130	76	54	—	.37	.42	.32	—
Both Unknown .....	406	207	186	13	1.17	1.15	1.11	21.31
One or Both Native .....	22,488	11,644	10,817	27	64.72	64.90	64.59	44.26
One or Both Foreign .....	18,008	9,342	8,639	27	51.82	52.07	51.58	44.26

Exhibit F affords an opportunity of comparing, for several years, the evidence relating to the parent-nativity of children born in Michigan. While the per cent. of native and foreign-born is smaller than usual, and below the average for ten years; on the other hand, in both classes of mixed parentage, the percentage for 1881 is larger than ever before. As heretofore, the percentage of children with "Foreign Father and Native Mother" is much larger than of the opposite class.

EXHIBIT F.—*Parent-Nativity of Children returned as having been Born in Michigan during each of the Years 1876 to 1881, inclusive.*

NATIVITY OF PARENTS OF CHILDREN BORN.	1876.		1877.		1878.		1879.		1880.		1881.	
	Num- ber.	Per Cent. of Total.	Num- ber.	Per Cent. of Total.	Num- ber.	Per Cent. of Total.	Num- ber.	Per Cent. of Total.	Num- ber.	Per Cent. of Total.	Num- ber.	Per Cent. of Total.
All Nativities.....	34,235	100.00	33,395	100.00	35,162	100.00	34,122	100.00	35,323	100.00	34,749	100.00
Both Parents Native....	15,551	45.42	15,270	45.73	16,328	46.42	15,964	46.49	16,274	46.07	15,907	45.78
Both Parents Foreign....	11,901	34.76	11,557	34.61	11,992	34.10	11,369	33.32	11,982	33.92	11,560	33.27
Foreign Father and Na- tive Mother.....	3,587	10.48	3,635	10.88	3,861	10.98	3,956	11.59	3,967	11.23	4,078	11.74
Foreign Mother and Na- tive Father.....	1,968	5.46	1,948	5.83	1,956	5.56	2,039	5.98	2,058	5.83	2,075	5.97
One or Both Unknown..	1,328	3.88	985	2.93	1,030	2.93	894	2.62	1,042	2.95	1,129	3.25
One or Both Parents Native.....	21,006	61.36	20,853	62.44	22,140	62.97	21,859	64.06	22,630	64.07	22,060	63.48
One or Both Parents Foreign.....	17,856	50.70	17,140	51.33	17,809	50.65	17,364	50.89	18,150	51.38	17,713	50.97
Father { Native.....	17,703	51.71	17,392	52.08	18,489	52.59	18,045	52.98	18,468	52.28	18,170	52.29
{ Foreign.....	15,721	45.92	15,813	45.85	15,981	45.45	15,397	45.12	16,017	45.34	15,808	45.48
{ Unknown..	811	2.37	690	2.07	692	1.97	680	1.99	838	2.37	776	2.23
Mother { Native.....	19,347	56.51	19,098	57.19	20,389	57.99	20,024	58.68	20,436	57.86	20,225	58.20
{ Foreign.....	13,853	40.46	13,599	40.72	14,082	39.91	13,492	39.54	14,115	39.96	13,765	39.61
{ Unknown..	1,035	3.02	698	2.09	741	2.11	606	1.78	772	2.19	759	2.18

a Excluding cases where nativity of either parent is unknown.

The parent-nativity of children born in Michigan in 1881 may be studied also in Table VIII. This table shows the number of native, foreign, etc., in the different counties of the State.



TABLE VIII.—*Exhibiting, for the State and Counties of Michigan, by Sex, the Total Number of Children Born during the Year 1881, and the Parent-Nativity of such Children, so far as stated in the Returns. (Still-births included.)*

STATE AND COUNTIES.	SEX.	Children Born, 1881.	NATIVITY OF PARENTS OF CHILDREN BORN,—1881. <sup>a</sup>								Both Unknown.
			Both Native.	Both Foreign.	Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		
							Father.		Mother.		
							Na- tive.	For- eign.	Na- tive.	For- eign.	
State	Total.....	34,749	15,907	11,560	4,078	2,075	188	<sup>c</sup> 165	240	<sup>d</sup> 130	<sup>e</sup> 406
	Males.....	17,941	8,183	5,941	2,136	1,116	95	73	114	76	207
	Females.....	16,747	7,706	5,599	1,937	958	91	91	125	54	186
	Unknown	61	18	20	5	1	2	1	1		13
Alcona	Total.....	42	11	26	1	3		1			
	Males.....	15	3	10		2					
	Females.....	27	8	16	1	1		1			
Allegan	Total.....	830	484	194	97	40	3		3	1	8
	Males.....	427	267	79	51	23	1		2	1	3
	Females.....	401	217	115	46	17	2		1		3
Alpena	Total.....	226	19	152	23	15	2	12		1	2
	Males.....	113	12	65	16	7	2	8		1	2
	Females.....	113	7	87	7	8		4			
Antrim	Total.....	140	53	47	22	16			1	1	
	Males.....	77	24	27	14	11			1		
	Females.....	63	29	20	8	5				1	
Baraga	Total.....	55	19	27	7	1			1		
	Males.....	27	10	14	3						
	Females.....	28	9	13	4	1			1		
Benzie	Total.....	480	364	37	52	20	1		3	1	2
	Males.....	232	180	12	27	10	1		1	1	
	Females.....	248	184	25	25	10			2		2
Bay	Total.....	1,160	288	604	150	112			2	1	3
	Males.....	626	155	320	88	61					2
	Females.....	534	133	284	62	51			2	1	1
Benzie	Total.....	108	58	22	13	12	1	1	1		
	Males.....	55	30	13	4	7	1				
	Females.....	53	28	9	9	5		1	1		

<sup>a</sup> "Native" includes only those born in the United States. Those cases in which the birthplace was returned as "America" were compiled with the "Unknown."

<sup>b</sup> For counties and townships from which no returns of births were received, see Table XXI.

<sup>c</sup> 4 males and 4 females, mother "America." <sup>d</sup> 3 males and 2 females, father "America."

<sup>e</sup> 5 males and 7 females, "America."

TABLE VI.—CONTINUED.—*Births by Counties, by Sex, and by Color*

COUNTIES.	Births,— Males to 100 Females.	SEX.	Per Ct. of Births of each Sex to Total of both Sexes.	Popula- tion in 1880 Rep- resented by Births in 1881.	Per Ct. of Births of each Sex to Popula- tion of same Sex.	COLOR,—CHILDREN BORN IN 188				
						Total of all Colors.	White.	Black.	Mu- latto.	In- dian.
Ionia.....	116	Total.....		33,872	1.52	615	614			
		Males.....	53.75	17,974	1.84	330	330			
		Females.....	46.25	15,898	1.79	284	284			
		Unknown.....				1				
Iosco.....	98	Total.....		6,873	2.88	198	198			
		Males.....	49.49	4,097	2.39	98	98			
		Females.....	50.51	2,776	3.60	100	100			
Isabella.....	86	Total.....		12,159	3.08	374	267			7
		Males.....	46.26	6,602	2.62	173	169			4
		Females.....	53.74	5,557	3.62	201	198			3
Isle Royal..*										
Jackson.....	102	Total.....		42,031	1.94	816	811	3	2	
		Males.....	50.49	21,833	1.59	412	410	1	1	
		Females.....	49.51	20,198	2.00	404	401	2	1	
Kalamazoo..	118	Total.....		34,342	1.65	565	553	7		
		Males.....	54.16	17,343	1.76	306	302	4		
		Females.....	45.84	16,999	1.52	259	256	5		
Kalkaska....	110	Total.....		2,987	3.00	83	83			
		Males.....	52.27	1,617	2.84	46	46			
		Females.....	47.73	1,320	3.18	42	42			
Kent.....	100	Total.....		73,253	2.34	1,714	1,689	7	1	
		Males.....	49.04	38,014	2.25	853	843	6		
		Females.....	50.06	35,239	2.43	857	845	1	1	
		Unknown.....				2	1			
Keweenaw....	133	Total.....		4,270	7.21	308	308			
		Males.....	57.00	2,396	7.30	175	175			
		Females.....	43.00	1,874	7.04	132	132			
		Unknown.....				1	1			
Lake.....	89	Total.....		3,233	2.57	83	82			1
		Males.....	46.99	1,941	2.01	39	38			1
		Females.....	53.01	1,292	3.41	44	44			
Lapeer.....	113	Total.....		30,138	1.82	550	548		2	
		Males.....	53.10	15,827	1.84	291	289		2	
		Females.....	46.90	14,311	1.80	257	257			
		Unknown.....				2	2			

\* No returns from county clerk to State Department.

TABLE VIII.—CONTINUED.—*Births by Counties, Parent-Nativity, and Sex.*

COUNTIES.	SEX.	Children Born, 1881.	NATIVITY OF PARENTS OF CHILDREN BORN,—1881. *							
			Both Native.	Both Foreign.	Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.	
							Father.		Mother.	
							Na- tive.	For- eign.	Na- tive.	For- eign.
Eaton	Total.....	608	522	15	40	15	5	-----	7	1
	Males.....	320	278	9	18	8	3	-----	2	-----
	Females.....	287	244	6	22	7	2	-----	4	1
	Unknown.....	1	-----	-----	-----	-----	-----	-----	1	-----
Emmet	Total.....	134	91	24	8	5	-----	-----	3	1
	Males.....	66	46	11	3	3	-----	-----	2	1
	Females.....	68	45	13	5	2	-----	-----	1	-----
Genesee	Total.....	663	427	81	93	53	3	-----	3	-----
	Males.....	316	195	43	40	30	2	-----	3	-----
	Females.....	347	232	38	53	23	1	-----	-----	-----
Gladwin	Total.....	12	5	5	1	1	-----	-----	-----	-----
	Males.....	6	2	2	1	1	-----	-----	-----	-----
	Females.....	5	2	3	-----	-----	-----	-----	-----	-----
	Unknown.....	1	1	-----	-----	-----	-----	-----	-----	-----
Grand Traverse	Total.....	127	75	28	10	13	-----	-----	-----	1
	Males.....	66	37	16	3	9	-----	-----	-----	1
	Females.....	61	38	12	7	4	-----	-----	-----	-----
Gratiot	Total.....	568	424	48	50	35	-----	-----	9	-----
	Males.....	287	222	25	22	13	-----	-----	4	-----
	Females.....	280	202	23	27	22	-----	-----	5	-----
	Unknown.....	1	-----	-----	1	-----	-----	-----	-----	-----
Hillsdale	Total.....	461	404	16	15	14	2	-----	3	-----
	Males.....	221	191	7	7	9	1	-----	1	-----
	Females.....	240	213	9	8	5	1	-----	2	-----
Houghton	Total.....	765	47	603	87	24	1	-----	1	2
	Males.....	391	21	311	44	12	-----	-----	1	2
	Females.....	374	26	292	43	12	1	-----	-----	-----
Huron	Total.....	546	69	365	64	38	1	2	1	2
	Males.....	264	31	176	32	18	-----	1	1	2
	Females.....	281	38	188	32	20	1	1	-----	-----
	Unknown.....	1	-----	1	-----	-----	-----	-----	-----	-----
Ingham	Total.....	529	406	49	40	25	1	-----	1	1
	Males.....	249	196	17	18	11	1	-----	1	1
	Females.....	279	209	32	22	14	-----	-----	-----	-----
	Unknown.....	1	1	-----	-----	-----	-----	-----	-----	-----

\* "Native" includes only those born in the United States. Those cases in which the birthplace was returned as "America" were compiled with the "Unknown."



TABLE VIII.—CONTINUED.—*Births by Counties, Parent-Nativity, and Sex.*

NATIVITY OF PARENTS OF CHILDREN BORN,—1881. a											
COUNTIES.	SEX.	Children Born, 1881.					MOTHER UNK.		FATHER UNK.		Both Unknown, b
			Both Native.	Both Foreign.	Foreign Father and Native Mother.	Foreign Mother and Native Father.	Father.		Mother.		
							Na- tive.	For- eign.	Na- tive.	For- eign.	
Ionia	Total.....	615	447	52	76	36			2		2
	Males.....	330	241	31	40	15			1		2
	Females.....	284	205	21	36	21			1		
	Unknown.....	1	1								
Iosco	Total.....	198	24	118	23	16					17
	Males.....	98	12	62	10	6					8
	Females.....	100	12	56	13	10					9
Isabella	Total.....	374	208	79	58	25	2				2
	Males.....	173	98	36	24	13	1				1
	Females.....	201	110	43	34	12	1				1
Isle Royal.....	b										
Jackson	Total.....	816	535	148	83	43	1	2	2	1	1
	Males.....	412	262	73	48	25			2	1	1
	Females.....	404	273	75	35	18	1	2			
Kalamazoo	Total.....	565	373	108	48	28			2	1	5
	Males.....	306	201	59	27	14			2		3
	Females.....	259	172	49	21	14				1	2
Kalkaska	Total.....	88	58	11	13	5				1	
	Males.....	46	32	6	5	2				1	
	Females.....	42	26	5	8	3					
Kent	Total.....	1,714	783	614	189	80	7	8	14	5	14
	Males.....	855	386	310	104	37	2	4	4	4	4
	Females.....	857	395	304	85	43	5	4	10	1	10
	Unknown.....	2	2								
Keweenaw	Total.....	308	19	234	32	6		6	1	3	7
	Males.....	175	7	140	13	5		5		1	4
	Females.....	132	12	93	19	1		1	1	2	3
	Unknown.....	1		1							
Lake	Total.....	83	43	19	12	7	1	1			
	Males.....	39	19	8	8	3		1			
	Females.....	44	24	11	4	4	1				
Lapeer	Total.....	550	230	176	81	60			1		2
	Males.....	291	120	95	39	35			1		1
	Females.....	257	110	80	42	25					
	Unknown.....	2		1							1

<sup>a</sup> "Native" included  
was returned—  
<sup>b</sup> No r

Those cases in which the birthplace  
is."

TABLE VIII.—CONTINUED.—*Births by Counties, Parent-Nativity, and Sex.*

COUNTIES.	SEX.	Children Born, 1881.	NATIVITY OF PARENTS OF CHILDREN BORN,—1881. <sup>a</sup>								Both Unknown.
			Both Native.	Both Foreign.	Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		
							Father.		Mother.		
							Na- tive.	For- eign.	Na- tive.	For- eign.	
Leelanaw	Total.....	147	36	81	19	8	-----	1	1	-----	1
	Males.....	71	19	38	8	4	-----	-----	1	-----	1
	Females.....	76	17	43	11	4	-----	1	-----	-----	-----
Lenawee	Total.....	707	509	91	68	23	4	2	5	-----	5
	Males.....	355	253	50	33	14	1	-----	2	-----	2
	Females.....	350	255	41	35	9	3	2	3	-----	2
	Unknown.....	2	1	-----	-----	-----	-----	-----	-----	-----	1
Livingston	Total.....	428	326	35	36	22	5	2	1	-----	1
	Males.....	226	178	15	17	12	2	1	-----	-----	1
	Females.....	202	148	20	19	10	3	1	1	-----	-----
Mackinac	Total.....	29	11	14	2	1	-----	1	-----	-----	-----
	Males.....	12	6	5	1	-----	-----	-----	-----	-----	-----
	Females.....	17	5	9	1	1	-----	1	-----	-----	-----
Macomb	Total.....	608	274	216	75	41	-----	-----	1	-----	1
	Males.....	309	128	110	44	26	-----	-----	-----	-----	1
	Females.....	298	146	106	30	15	-----	-----	1	-----	-----
	Unknown.....	1	-----	-----	1	-----	-----	-----	-----	-----	-----
Manistee	Total.....	405	99	242	47	13	-----	-----	2	1	1
	Males.....	221	54	134	25	6	-----	-----	2	-----	-----
	Females.....	182	43	108	22	7	-----	-----	-----	1	1
	Unknown.....	2	2	-----	-----	-----	-----	-----	-----	-----	-----
Manitou	Total.....	19	5	6	5	3	-----	-----	-----	-----	-----
	Males.....	8	1	4	2	1	-----	-----	-----	-----	-----
	Females.....	11	4	2	3	2	-----	-----	-----	-----	-----
Marquette	Total.....	810	65	603	84	18	4	30	1	1	4
	Males.....	415	35	298	50	12	3	14	1	1	1
	Females.....	383	30	295	34	6	1	15	-----	-----	2
	Unknown.....	12	-----	10	-----	-----	-----	1	-----	-----	1
Mason	Total.....	234	87	97	30	15	1	2	2	-----	-----
	Males.....	111	41	43	17	7	1	1	1	-----	-----
	Females.....	123	46	54	13	8	-----	1	1	-----	-----
Mecosta	Total.....	294	143	82	30	33	-----	-----	1	1	4
	Males.....	153	66	47	15	23	-----	-----	-----	1	1
	Females.....	140	76	35	15	10	-----	-----	1	-----	3
	Unknown.....	1	1	-----	-----	-----	-----	-----	-----	-----	-----

<sup>a</sup> "Native" includes only those born in the United States. Those cases in which the birthplace was returned as "America" were compiled with the "Unknown."

<sup>b</sup> 1 female, father "America."

TABLE VIII.—CONTINUED.—*Births by Counties, Parent-Nativity, and Sex.*

COUNTIES.	SEX.	Children Born, 1881.	NATIVITY OF PARENTS OF CHILDREN BORN,—1881.*								Both Unknown.
			Both Native.	Both Foreign.	Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		
							Father.		Mother.		
							Na- tive.	For- eign.	Na- tive.	For- eign.	
Menominee.....	Total.....	347	44	211	32	9	11	31	-----	-----	9
	Males.....	176	24	110	20	5	3	11	-----	-----	3
	Females..	171	20	101	12	4	8	20	-----	-----	6
Midland.....	Total.....	163	75	46	24	14	2	-----	-----	-----	2
	Males.....	83	45	17	10	10	1	-----	-----	-----	-----
	Females..	79	30	29	14	4	-----	-----	-----	-----	2
Alcona.....	Unknown	1	-----	-----	-----	-----	1	-----	-----	-----	-----
	Total.....	61	29	13	12	5	1	-----	-----	-----	1
	Males.....	30	15	6	6	2	1	-----	-----	-----	-----
Alcona.....	Females..	30	13	7	6	3	-----	-----	-----	-----	1
	Unknown	1	1	-----	-----	-----	-----	-----	-----	-----	-----
	Alcona.....	Total.....	731	507	91	89	42	1	-----	1	-----
Males.....		387	273	40	45	27	1	-----	1	-----	-----
Females..		344	234	51	44	15	-----	-----	-----	-----	-----
Alcona.....	Total.....	466	286	75	47	33	1	4	3	5	12
	Males.....	263	158	42	26	21	1	2	3	3	7
	Females..	203	128	33	20	12	-----	2	-----	2	5
Alcona.....	Unknown	1	-----	-----	1	-----	-----	-----	-----	-----	-----
	Total.....	8	-----	5	-----	2	1	-----	-----	-----	-----
	Males.....	5	-----	2	-----	2	1	-----	-----	-----	-----
Alcona.....	Females..	3	-----	3	-----	-----	-----	-----	-----	-----	-----
	Total.....	713	207	365	77	45	3	2	4	1	9
	Males.....	375	106	187	44	23	1	1	1	1	5
Alcona.....	Females..	337	101	177	33	16	2	1	3	-----	4
	Unknown	1	-----	1	-----	-----	-----	-----	-----	-----	-----
	Alcona.....	Total.....	245	144	43	28	19	3	2	3	1
Males.....		123	75	21	10	13	1	-----	1	1	1
Females..		122	69	22	18	6	2	2	2	-----	1
Alcona.....	Total.....	513	336	76	54	22	5	1	3	1	10
	Males.....	250	182	42	29	12	4	1	5	1	4
	Females..	231	154	34	25	10	1	-----	3	-----	4
Alcona.....	Unknown	2	-----	-----	-----	-----	-----	-----	-----	-----	2

\* "Native" includes only those born in the United States. Those cases in which the birthplace was not ascertained are included as "Unknown."  
 "America."



TABLE VIII.—CONTINUED.—*Births by Counties, Parent-Nativity, and Sex.*

COUNTIES.	SEX.	Children Born, 1881.	NATIVITY OF PARENTS OF CHILDREN BORN,—1881. <sup>a</sup>								Both Unknown.
			Both Native.	Both Foreign.	Foreign Father, and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		
							Father.		Mother.		
							Na- tive.	For- eign.	Na- tive.	For- eign.	
Oceana	Total	240	146	43	23	20			4		4
	Males	126	72	28	13	10			1		
	Females	114	74	15	10	10			3		2
Ogemaw	Total	39	16	10	5	1	1	1		2	3
	Males	24	10	8	2		1	1		1	1
	Females	14	6	2	3	1				1	1
Ontonagon	Unknown	1									1
	Total	47	9	22	12	3		1			
	Males	24	4	9	8	2		1			
Osceola	Females	23	5	13	4	1					
	Total	279	142	79	30	16				1	11
	Males	157	76	43	20	9				1	8
Oscoda	Females	122	66	36	10	7					3
	Total	8	6	1	1						
	Males	4	3	1							
Otsego	Females	4	3		1						
	Total	50	24	18	1	3		1	1		2
	Males	34	18	10	1	2		1	1		1
Ottawa	Females	16	6	8		1					1
	Total	787	328	302	95	38	6	11	3	1	3
	Males	415	188	147	54	18	3	3	2		
Presque Isle	Females	368	139	154	40	20	3	8	1	1	2
	Unknown	4	1	1	1						1
	Total	124	3	113	6	2					
Roscommon	Males	58	2	53	2	1					
	Females	66	1	60	4	1					
	Total	33	18	9	4	1					1
Saginaw	Males	20	11	6	2	1					
	Females	13	7	3	2						1
	Total	1,518	468	618	247	132	2	1	10	2	38
Sanilac	Males	800	247	338	116	67	2	1	3	2	24
	Females	718	221	280	131	65			7		14
	Total	689	83	425	114	65			2		
Sanilac	Males	346	40	211	64	31					
	Females	342	43	213	50	34			2		
	Unknown	1		1							

<sup>a</sup> "Native" includes only those born in the United States. Those cases in which the birthplace is turned as "America" were compiled with the "Unknown."  
 males and 2 females, mother "America." c 2 females, "America."

TABLE VIII.—CONTINUED.—*Births by Counties, Parent-Nativity, and Sex.*

		NATIVITY OF PARENTS OF CHILDREN BORN,—1881.*									
COUNTIES.	SEX.	Children Born, 1881.			Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		Both Unknown.
			Both Native.	Both Foreign.			Father.		Mother.		
							Na- tive.	For- eign.	Na- tive.	For- eign.	
Schoolcraft.....	Total.....	16	6	7	1	1	1	-----	-----	-----	-----
	Males.....	9	3	5	-----	1	-----	-----	-----	-----	-----
	Females.....	7	3	2	1	-----	1	-----	-----	-----	-----
Shiawassee.....	Total.....	470	305	71	49	29	10	2	-----	-----	1
	Males.....	270	183	42	22	19	3	-----	-----	-----	1
	Females.....	197	120	32	27	10	6	2	-----	-----	-----
	Unknown.....	3	2	-----	-----	-----	1	-----	-----	-----	-----
St. Clair.....	Total.....	952	279	387	168	104	2	1	3	5	3
	Males.....	482	148	197	89	42	1	-----	2	1	2
	Females.....	463	130	186	78	61	1	1	1	4	1
	Unknown.....	7	1	4	1	1	-----	-----	-----	-----	-----
St. Joseph.....	Total.....	402	277	63	27	8	10	1	3	1	6
	Males.....	205	139	27	17	4	10	1	3	1	3
	Females.....	197	138	36	10	4	6	-----	-----	-----	3
Tuscola.....	Total.....	583	262	181	88	50	1	-----	-----	-----	1
	Males.....	313	135	98	50	26	1	-----	-----	-----	-----
	Females.....	270	124	83	38	24	-----	-----	-----	-----	1
Van Buren.....	Total.....	512	414	21	43	24	1	1	7	-----	1
	Males.....	271	220	13	22	12	1	-----	2	-----	1
	Females.....	240	193	8	21	12	-----	1	5	-----	-----
	Unknown.....	1	1	-----	-----	-----	-----	-----	-----	-----	-----
Washtenaw.....	Total.....	619	325	150	78	45	9	-----	5	1	6
	Males.....	332	159	91	38	32	4	-----	3	1	4
	Females.....	287	166	59	40	13	5	-----	2	-----	2
Wayne.....	Total.....	4,501	1,040	2,216	649	301	15	b 10	79	c 75	d 116
	Males.....	2,357	534	1,155	352	168	7	4	39	42	56
	Females.....	2,143	506	1,061	297	133	8	6	40	33	59
	Unknown.....	1	-----	-----	-----	-----	-----	-----	-----	-----	1
Wexford.....	Total.....	138	64	12	15	6	22	14	2	-----	3
	Males.....	63	26	4	11	3	11	6	1	-----	1
	Females.....	74	38	8	4	3	11	8	1	-----	1
	Unknown.....	1	-----	-----	-----	-----	-----	-----	-----	-----	1

\* "Native" includes only those born in the United States. Those cases in which the birthplace was returned as "America" were compiled with the "Unknown."

b 2 males and 2 females, mother "America."

c 3 males and 1 female, father "America."

d 4 males and 5 females, "America."

## TWIN CHILDREN, 1881.

There were 372 cases of plurality births in Michigan during the year 1881; this was 14 more than was recorded in 1880. In 124 cases both children were males; in 112 cases both were females; and in 136 cases there was one child of each sex, making 384 male and 360 female children, with a grand total of 744. In Table IX. the number of twin children are arranged in order, those months being placed first in which occurred the greatest number of twin births. The month of July heads the list with the largest number, while the month of August is at the foot with the smallest number. In 1881 there was an excess of males among the twin children, there being 107 males to 100 females. The proportion of plural births does not vary much from year to year, there being about one plural birth to every one hundred single births.

TABLE IX.—*Exhibiting, by Sex, the Number of Pairs of Twins, and the Number of Twin Children Returned as having been Born in Michigan during the Year 1881, by Months Arranged in Order by Number; also, by Pairs and by Individuals, the Number of Males to 100 Females.*

YEAR AND MONTHS, 1881.		NUMBER OF TWIN CHILDREN, 1881.				NUMBER OF PAIRS OF TWINS, 1881.					
		Total.	Males.	Fe-males.	Males to 100 Fe-males.	Total.	Males.	Fe-males.	One of each Sex.	Males to 100 One of each Sex.	Males to 100 Fe-males.
Year, 1881.....		744	384	360	107	372	124	112	136	91	111
More than the Av. No. of Twins.	July.....	84	45	39	115	42	16	13	13	123	123
	December.....	74	36	38	95	37	10	11	16	62	91
	January.....	76	45	25	180	35	16	6	13	123	266
	April.....	70	40	30	133	35	14	9	12	117	156
	October.....	70	32	38	84	35	8	11	16	50	73
	March.....	66	39	27	144	33	14	8	11	127	175
	May.....	66	36	30	120	33	13	10	10	130	130
	September.....	64	31	33	94	32	10	11	11	91	91
Average.....		32	32	30	107	31	10.3	9.3	11.3	91	111
Less than the Av. No. of Twins.	August.....	56	23	33	69	28	8	13	7	114	62
	February.....	54	21	33	64	27	5	11	11	45	45
	June.....	36	19	17	112	18	5	4	9	55	125
	November.....	32	16	16	100	16	5	5	6	83	100
	Unknown.....	2	1	1	100	1	-----	-----	1	100	-----

Statistics in regard to the nativity of the parents of twins may be studied in Table X. From this table it will be seen that of the 372 pairs of twins in 81, 173, or 46.51 per cent. of all were born of purely native parents. Turn-back to Table VII. it will be seen that the proportion of native-born parents is greater for twins than for all children born, and the same is true of



foreign-born parents. The difference, however, is much greater for foreign-born than for native-born parents, which would seem to indicate that there is a larger twin birth-rate among the foreign-born parents than among the native. This fact is also proved by the evidence of former years, and again by comparing the lines "One or Both Native," and "One or Both Foreign," in tables VII. and X. for 1881.

TABLE X.—*Parent-Nativity of Twins Returned as having been Born in Michigan during the Year 1881.*

NATIVITY OF PARENTS OF TWINS, 1881.	PAIRS OF TWINS, 1881.							
	NUMBER.				PER CENT. OF EACH PAR- ENT-NATIVITY TO TOTAL OF ALL NATIVITIES.			
	Total.	Males.	Fe- males.	One of Each Sex.	Total.	Males.	Fe- males.	One of Each Sex.
All Nativities.....	372	124	112	136	100.00	100.00	100.00	100.00
Both Native.....	173	60	56	57	46.51	48.39	50.00	41.91
Both Foreign.....	132	39	40	53	35.48	31.45	35.71	38.97
Foreign Father and Native Mother.....	42	13	10	19	11.29	10.48	8.93	13.97
Foreign Mother and Native Father.....	20	10	4	6	5.38	8.06	3.57	4.41
Unknown Mother, Father Native.....	1	1			.26	.81		
Unknown Mother, Father Foreign.....								
Unknown Father, Mother Native.....	3	1	2		.81	.81	1.79	.74
Unknown Father, Mother Foreign.....	1			1	.27			
Both Unknown.....								
One or Both Native.....	239	85	72	82	64.25	68.55	64.29	60.29
One or Both Foreign.....	195	62	54	79	52.42	50.00	48.21	58.09

Exhibit 5 shows, by nativity and color, the per cent. of mothers who bore twins to all mothers. It will be observed that the per cent. is much larger among the foreign-born than among any other nativity or in mothers of all nativities. The per cent. among the black mothers is greater than among any other color.

EXHIBIT 5.—*By Nativity and by Color of Mothers, the Number and Proportion of Twin Births Returned as having occurred in Michigan during the Years 1879 to 1881, inclusive.*

NATIVITY AND COLOR OF MOTHERS OF TWINS.	1879.			1880.			1881.		
	Pairs of Twins.	Whole Number of Mothers, Including those of Twins.	Per Ct. of Births of Twins to all Mothers.	Pairs of Twins.	Whole Number of Mothers, Including those of Twins.	Per Ct. of Births of Twins to all Mothers.	Pairs of Twins.	Whole Number of Mothers, Including those of Twins.	Per Ct. of Births of Twins to all Mothers.
Mothers of all Colors and all Nationalities.....	402	33,716	1.19	358	34,953	1.02	372	34,367	1.08
All Native Mothers.....	247	19,777	1.25	205	20,223	1.01	218	20,001	1.09
All Foreign Mothers.....	150	13,338	1.12	150	13,961	1.07	153	13,608	1.12
Mothers of Unknown Nationalities.....	5	601	.83	3	769	.39	1	758	.13
White.....	400	33,325	1.20	351	34,497	1.02	364	34,013	1.07
Black.....	1	132	.76	2	127	1.57	3	116	2.59
Mulatto.....	1	95	1.05	1	72	1.39	2	82	2.44
Indian.....	—	122	—	4	146	2.74	2	93	2.15
Unknown.....	—	42	—	—	111	—	1	63	1.59
Black and Mulatto.....	2	227	.88	3	199	1.51	5	198	2.53

It appears from Table XI. that more than one-half or 52.15 per cent. of the twin-births in 1881 were born of parents who were of the same state or country.

TABLE XI.—*Parent-Nativity of Twins Returned as having been Born in Michigan during the Year 1881,—distinguishing between Parents who were Natives of the same State and those Born in Different States or Countries.*

NATIVITY OF PARENTS OF TWINS, 1881.	PAIRS OF TWINS, 1881.							
	NUMBER.				PER CENT. OF EACH PARENT-NATIVITY TO TOTAL OF ALL NATIVITIES.			
	Total.	Males.	Fe-males.	One of Each Sex.	Total.	Males.	Fe-males.	One of Each Sex.
All Nationalities.....	372	124	112	136	100.00	100.00	100.00	100.00
Same American State or Foreign Country.....	194	66	55	73	52.15	53.25	49.11	53.67
Different American States or Foreign Countries.....	111	33	41	37	29.84	26.61	36.61	27.21
Foreign Father and Native Mother.....	42	13	10	19	11.29	10.48	8.93	13.97
Foreign Mother and Native Father.....	20	10	4	6	5.38	8.06	3.57	4.41
Unknown Mother, Father Native.....	1	1	—	—	.27	.81	—	—
Unknown Mother, Father Foreign.....	—	—	—	—	—	—	—	—
Unknown Father, Mother Native.....	3	1	2	—	.81	.81	1.79	.74
Unknown Father, Mother Foreign.....	1	—	—	1	.27	—	—	—
Both Unknown.....	—	—	—	—	—	—	—	—
Different States or Countries.....	173	56	55	62	46.51	45.16	49.11	45.89

\* Includes "Different American States or Foreign Countries," "Foreign Father and Native Mother," and "Foreign Mother and Native Father." Compare with "Same American State or Foreign Country," and with same lines in Table XV.,—for still-born children.

**TABLE XII.**—*Exhibiting, for the State and Counties, by Sex, the number of Pairs of Twins, the Number of Twin Children, and the Nativity of Parents of Twins Returned as having been Born in Michigan during the Year 1881. Nativity stated by Pairs of Twins.*

STATE AND COUNTIES.		SEX.	Number of Individuals.	Number of Pairs of Twins.	NATIVITY OF PARENTS OF TWINS, 1881. <sup>a</sup>										
					NATIVE.		FOREIGN.		Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		Both Unknown.
					Both Parents from Same State.	From Different States.	Both from Same Country.	From Different Countries.			Father.		Mother.		
											Native.	Foreign.	Native.	Foreign.	
State	Total	744	372	93	80	101	31	42	20	1		3	1		
	Males	384	124	b 36	c 24	d 30	e 9	f 13	10	f 1		g 1			
	Females	360	112	h 27	29	i 28	12	10	4			i 2			
	One of each		136	30	j 27	k 43	10	l 19	6				1		
Alcona	Females	2	1		1										
Allegan	Total	26	13	4	2	4	1	1	1						
	Males	14	4	3	1										
	Females	12	3	1		f 1			1						
	One of each		6		1	3	1	1							
Alpena	Total	8	4			4									
	Males	3													
	Females	5	1			1									
Antrim	Total	3				3									
	Males														
	Females	5	1	f 1											
Barry	Total	14	7	3	3	1									
	Males	5	2	f 2											
	Females	9	4		3	1									
	One of each		1	1											
Bay	Total	12	6	2	1	2		1							
	Males	7	1					1							
	Females	5													
	One of each		5	2	1	f 2									
Benzie	Total	4	2	1				1							
	Males	1													
	Females	3	1	1											
	One of each		1					1							

<sup>a</sup> See foot-note <sup>a</sup> to Table VIII.

<sup>b</sup> 3 pairs and 1 male still-born.

<sup>c</sup> 2 males still-born.

<sup>d</sup> 1 male still-born and 1 pair illegitimate.

<sup>e</sup> 1 male still-born.

<sup>f</sup> 1 pair still-born.

<sup>g</sup> 1 pair illegitimate.

<sup>h</sup> 2 pairs and 1 female still-born.

<sup>i</sup> 1 pair still-born, illegitimate, and Mulatto.

<sup>j</sup> 1 pair and 1 male still-born.

<sup>k</sup> 1 pair and 3 males still-born and 1 pair illegitimate.

<sup>l</sup> mate.

<sup>m</sup> 1 female still-born.



TABLE XII.—CONTINUED.—*Parent-Nativity of Twins.*

COUNTIES.	SEX.	Number of Individuals.	Number of Pairs of Twins.	NATIVITY OF PARENTS OF TWINS, 1881. <sup>a</sup>										Both Unknown.
				NATIVE.		FOREIGN.		Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		
				Both Parents from Same State.	From Different States.	Both from Same Country.	From Different Countries.			Father.		Mother.		
										Native.	Foreign.	Native.	Foreign.	
Berrien	Total	12	6	3	2	1								
	Males	10	4	2	1	1								
	Females	2												
	One of each		2	1	b 1									
Branch	Males	6	3		2	1								
Calhoun	Total	10	5	2	1			2						
	Males	5	2	b 1	1									
	Females	5	2					2						
	One of each		1	1										
Cass	Total	10	5	1	3							1		
	Males	7	3	1	2									
	Females	3	1									c 1		
	One of each		1		1									
Charlevoix	Total	8	3			2	1							
	Males	5	2			1	1							
	Females	1												
	One of each		1			1								
Cheboygan	Males	4	2			1		1						
Clare	Total	4	2		1	1								
	Males	2												
	Females	2												
	One of each		2		1	1								
Delta	Total	2	1			1								
	Males	1												
	Females	1												
	One of each		1			1								
Eaton	Males	2	1							d 1				
Emmet	Total	6	3	2	1									
	Males	5	2	2										
	Females	1												
	One of each		1		1									

<sup>a</sup> See foot-note <sup>a</sup> to Table VIII.<sup>b</sup> 1 male still-born.<sup>c</sup> 1 pair still-born, illegitimate, and Mulatto.<sup>d</sup> 1 pair still-born.

TABLE XII.—CONTINUED.—*Parent-Nativity of Twins.*

COUNTIES.	SEX.	Number of Individuals.	Number of Pairs of Twins.	NATIVITY OF PARENTS OF TWINS, 1881. <sup>a</sup>										Both Unknown.
				NATIVE.		FOREIGN.		Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		
				Both Parents from Same State.	From Different States.	Both from Same Country.	From Different Countries.			Native.	Foreign.	Native.	Foreign.	
Genesee	Total.....	18	9	4	1	2		2						
	Males.....	7	3	1		1		1						
	Females.....	11	5	<sup>b</sup> 2	1	1		1						
	One of each.....		1	1										
Grand Traverse	Total.....	2	1		1									
	Males.....	1												
	Females.....	1												
	One of each.....		1		1									
Gratiot	Total.....	20	10	4	3		1	1	1					
	Males.....	8	3	<sup>b</sup> 1	1		1							
	Females.....	12	5	<sup>c</sup> 2	1			1	1					
	One of each.....		2	1	1									
Hillsdale	Total.....	10	5	3	1				1					
	Males.....	7	2	1					1					
	Females.....	3												
	One of each.....		3	<sup>c</sup> 2	1									
Houghton	Total.....	20	10	1		6	2	1						
	Males.....	10	2			1	1							
	Females.....	10	2			2								
	One of each.....		6	1		3	1	1						
Huron	Total.....	8	4		1	1	2							
	Males.....	5	2		1		1							
	Females.....	3	1				1							
	One of each.....		1			1								
Ingham	Total.....	22	11	5	1	1	2	2						
	Males.....	11	3	1	1			1						
	Females.....	11	3	<sup>c</sup> 2			1							
	One of each.....		5	<sup>c</sup> 2		1	1	1						
Ionia	Total.....	6	3	2	1									
	Males.....	3												
	Females.....	3												
	One of each.....		3	<sup>c</sup> 2	1									

<sup>a</sup> See foot-note <sup>a</sup> to Table VIII.<sup>b</sup> 1 pair still-born.<sup>c</sup> 1 male still-born.

TABLE XII.—CONTINUED.—*Parent-Nativity of Twins.*

COUNTIES.	SEX.	Number of Individuals.	Number of Pairs of Twins.	NATIVITY OF PARENTS OF TWINS, 1881.*										Both Unknown.
				NATIVE.		FOREIGN.		Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		
				Both Parents from Same State.	From Different States.	Both from Same Country.	From Different Countries.			Father.		Mother.		
										Native.	Foreign.	Native.	Foreign.	
Iosco.....	Total.....	4	2				2							
	Males.....	2	1				1							
	Females.....	2	1				1							
Isabella.....	Total.....	6	3				1	1	1					
	Males.....	5	2					1	1					
	Females.....	1												
Jackson.....	One of each.....		1				1							
	Total.....	22	11	3	4	2		1	1					
	Males.....	9	4		1	2			1					
Kalamazoo.....	Females.....	13	6	3	3									
	One of each.....		1					1						
	Total.....	22	11	2	3	1	2	2	1					
Kalkaska.....	Males.....	8	1				1							
	Females.....	14	4	2	1		1							
	One of each.....		6		2	1		2	1					
Kent.....	Females.....	2	1						1					
	Total.....	32	16	5	3	4	1	2	1					
	Males.....	16	4	1		2			1					
Keweenaw.....	Females.....	16	4		2	1	1							
	One of each.....		8	4	b 1	1		b 2						
	Total.....	6	3			3								
Lapeer.....	Males.....	5	2			2								
	Females.....	1												
	One of each.....		1			1								
Leclanaw.....	Total.....	16	8	4	2	1	1							
	Males.....	10	3	1		1	1							
	Females.....	6	1		1									
Lenawee.....	One of each.....		4	3	1									
	Males.....	2	1	1										
	Total.....	24	12	6	4	1		1						
Lenawee.....	Males.....	12	5	3	1	1								
	Females.....	12	5	2	2			1						
	One of each.....		2	1	1									

\* See foot-note \* to Table VIII.

b 1 pair still-born.

TABLE XII.—CONTINUED.—*Parent-Nativity of Twins.*

COUNTIES.	SEX.	Number of Individuals.	Number of Pairs of Twins.	NATIVITY OF PARENTS OF TWINS, 1881. a											
				NATIVE.		FOREIGN.		MOTHER UNK.		FATHER UNK.		Both Unknown.			
				Both Parents from Same State.	From Different States.	Both from Same Country.	From Different Countries.	Foreign Father and Native Mother.	Foreign Mother and Native Father.	Native.	Foreign.		Native.	Foreign.	
															Father.
Livingston	Females	2	1		1										
	Total	6	3	1		1		1							
Macomb	Males	2													
	Females	4	1	1											
	One of each		2			1		1							
	Total	14	7		1	3	2	1							
Manistee	Males	5	1			1									
	Females	9	3		1	1		1							
	One of each		3			1	2								
Manitou	Females	2	1		1										
	Total	12	6		1	3	1	1							
Marquette	Males	7	3		1	1	1								
	Females	5	2			2									
	One of each		1					1							
	Total	10	5	1		1	2	1							
Mason	Males	5	2			1		1							
	Females	5	2	1				1							
	One of each		1					1							
	Total	16	8	3	1	2		1	1						
Mecosta	Males	11	4	1	1	1			1						
	Females	5	1	1											
	One of each		3	1		1		1							
	Total	6	8		1	1	1								
Menominee	Males	2													
	Females	4	1			1									
	One of each		2		1		1								
Midland	Females	2	1					1							
	Total	20	10	7		1			2						
Monroe	Males	13	4	3											
	Females	7	1	1											
	One of each		5	3		1									

\* See foot-note \* to Table VIII.



TABLE XII.—CONTINUED.—*Parent-Nativity of Twins.*

COUNTIES.	SEX.	Number of Individuals.	Number of Pairs of Twins.	NATIVITY OF PARENTS OF TWINS, 1881. <sup>a</sup>										
				NATIVE.		FOREIGN.		Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		
				Both Parents from Same State.	From Different States.	Both from Same Country.	From Different Countries.			Father.		Mother.		
										Native.	Foreign.	Native.	Foreign.	
Montcalm	Total	18	9	2	5		2							
	Males	11	5	2	b 3									
	Females	7	3		1		2							
	One of each		1		1									
Montmorency	Total	2	1			1								
	Males	1												
	Females	1												
	One of each		1			b 1								
Muskegon	Total	16	8	3	1				4					
	Males	13	6	2	1				3					
	Females	3	1						1					
	One of each		1	1										
Newaygo	Total	6	3	1		1			1					
	Males	4	1			b 1								
	Females	2												
	One of each		2	1					1					
Oakland	Total	6	3	1		2								
	Males	4	2	1		1								
	Females	2	1			1								
	One of each													
Oceana	Total	8	4		3				1					
	Males	4	1		1									
	Females	4	1		1									
	One of each		2		1				1					
Ogemaw	Total	2	1		1									
	Males	2	1		1									
	Females													
	One of each													
Osceola	Total	4	2			2								
	Males	1												
	Females	3	1			1								
	One of each		1			1								
Otsego	Total	14	7	3	1	2	1							
	Males	6	1			1								
	Females	8	2	1			1							
	One of each		4	2	1	1								
Ottawa	Total													
	Males													
	Females													
	One of each													

<sup>a</sup> See foot-note <sup>a</sup> to Table VIII.<sup>b</sup> 1 male still-born.

TABLE XII.—CONTINUED.—*Parent-Nativity of Twins.*

COUNTIES.	SEX.	Number of Individuals.	Number of Pairs of Twins.	NATIVITY OF PARENTS OF TWINS, 1881 <sup>a</sup>										
				NATIVE.		FOREIGN.		Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		Both Unknown.
				Both Parents from Same State.	From Different States.	Both from Same Country.	From Different Countries.			Father.		Mother.		
										Native.	Foreign.	Native.	Foreign.	
Saginaw	Total.....	30	15	.....	3	8	2	2	.....	.....	.....	.....	.....	.....
	Males.....	14	3	.....	b 1	.....	b 1	1	.....	.....	.....	.....	.....	.....
	Females.....	16	4	.....	1	2	.....	1	.....	.....	.....	.....	.....	.....
	One of each.....	.....	8	.....	1	6	1	.....	.....	.....	.....	.....	.....	.....
Sanilac	Total.....	8	4	.....	.....	2	1	1	.....	.....	.....	.....	.....	.....
	Males.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Females.....	7	3	.....	.....	2	1	.....	.....	.....	.....	.....	.....	.....
	One of each.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
Shiawassee	Total.....	6	3	1	.....	1	.....	1	.....	.....	.....	.....	.....	.....
	Males.....	5	2	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
	Females.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	One of each.....	.....	1	.....	.....	b 1	.....	.....	.....	.....	.....	.....	.....	.....
St. Clair	Total.....	16	8	3	1	.....	1	1	2	.....	.....	.....	.....	.....
	Males.....	9	3	1	1	.....	.....	.....	1	.....	.....	.....	.....	.....
	Females.....	7	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	One of each.....	.....	3	.....	.....	.....	1	1	1	.....	.....	.....	.....	.....
St. Joseph	Total.....	10	5	.....	3	2	.....	.....	.....	.....	.....	.....	.....	.....
	Males.....	4	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Females.....	6	2	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....
	One of each.....	.....	2	.....	1	c 1	.....	.....	.....	.....	.....	.....	.....	.....
Tuscola	Total.....	12	6	1	1	2	1	1	.....	.....	.....	.....	.....	.....
	Males.....	7	3	1	.....	1	.....	b 1	.....	.....	.....	.....	.....	.....
	Females.....	5	2	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....
	One of each.....	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
Van Buren	Total.....	4	2	.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....
	Males.....	3	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
	Females.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	One of each.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Washtenaw	Total.....	22	11	4	3	2	.....	1	1	.....	.....	.....	.....	.....
	Males.....	9	2	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....
	Females.....	13	4	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
	One of each.....	.....	5	.....	2	1	.....	1	1	.....	.....	.....	.....	.....

<sup>a</sup> See foot-note <sup>a</sup> to Table VIII.<sup>b</sup> 1 male still-born.<sup>c</sup> 1 pair illegitimate.



TABLE XII.—CONTINUED.—*Parent-Nativity of Twins.*

COUNTIES.	SEX.	Number of Individuals.	Number of Pairs of Twins.	NATIVITY OF PARENTS OF TWINS, 1881.*										
				NATIVE.		FOREIGN.		Foreign Father and Native Mother.	Foreign Mother and Native Father.	MOTHER UNK.		FATHER UNK.		Both Unknown.
				Both Parents from Same State.	From Different States.	Both from Same Country.	From Different Countries.			Father.		Mother.		
										Native.	Foreign.	Native.	Foreign.	
Wayne.....	Total.....	94	47	3	8	21	2	10				2	1	
	Males.....	40	13	b 2		c 6		4				c 1		
	Females.....	54	20	1	5	9	1	3				1		
	One of each.....		14		3	6	1	3					1	
Wexford.....	Total.....	2	1					1						
	Males.....	1												
	Females.....	1												
	One of each.....		1					1						

<sup>a</sup> See foot-note <sup>a</sup> to Table VIII.<sup>b</sup> 1 pair still-born.<sup>c</sup> 1 pair illegitimate.TABLE XIII.—*Occupations of Fathers of Twins Born in Michigan during the Year 1881, according to the Returns.*

OCCUPATIONS.	Number of Each.	OCCUPATIONS.	Number of Each.
ALL OCCUPATIONS.....	372	Clerks.....	2
Artesian Well-borer.....	1	Conductors on R. R.....	1
Baggage-masters.....	1	Confectioners.....	2
Bakers.....	1	Coopers.....	2
Barbers.....	1	Draymen.....	1
Blacksmiths.....	4	Engineers.....	1
Book Agents.....	1	Engine-wipers.....	1
Book-keepers.....	2	Farmers.....	184
Boot and Shoe Manufacturers.....	1	Finishers.....	1
Brass-finishers.....	1	Firemen.....	1
Carpenters.....	14	Fishermen.....	3
Carriage Painters.....	1	Foremen.....	1
Cigar-makers.....	1	Gardeners.....	1
Cigar Manufacturers.....	1	Gas-fitters.....	1
		Grocers.....	2

TABLE XIII.—CONTINUED.

OCCUPATIONS.	Number of Each.	OCCUPATIONS.	Number of Each.
Hotel-keepers.....	2	Plasterers.....	1
Insurance Agents.....	1	R. R. Employes.....	1
Jailers.....	1	Railroading.....	1
Jewelers.....	1	Sailors.....	1
Jobbers.....	1	Salesmen.....	1
Justices of Peace.....	1	Saloon-keepers.....	2
Laborers.....	56	"Saw-mill".....	2
Land-lookers.....	1	Sawyers.....	1
Lawyers.....	1	Sewing Machine Agents.....	1
Loggers.....	1	Shoe-makers.....	1
Lumber Inspectors.....	2	Shoe-fitters.....	1
Lumbermen.....	3	Stone-cutters.....	1
Masons.....	1	Stone-masons.....	2
Mechanics.....	3	Switchmen.....	1
Merchants.....	6	Tailors.....	1
Millers.....	3	Teachers.....	2
Mill-hands.....	1	Teamsters.....	1
Miners.....	9	Telegraph Operators.....	2
Ministers.....	2	Tinsmiths.....	1
Moulders.....	1	Traveling Agents.....	2
Painters.....	4	Unknown.....	7
Physicians.....	3	Watch-makers.....	1

## TRIPLETS.

There were five cases of triplets reported during the year 1881, of which, in three cases, the parents were both native, and in two cases the parents were both foreign. The parents of all the triplets were white.

TABLE XIX.—*Exhibiting certain Details concerning Triplet Children Returned as having been born in Michigan during the Year 1881.*

COUNTIES.	TRIPLET CHILDREN, 1881.					PARENTS OF TRIPLETS, 1881.		
	Month of Birth, 1881.	Color.	SEX.			Birthplace of Father.	Birthplace of Mother.	Occupation of Father.
			Males.	Females.	Unk.			
Barry.....	July.....	White...	2	1		New York.	Penn.....	Farmer...
Berrien.....	Feb.....	White...	2	1		U. S.....	U. S.....	Laborer...
Marquette.....	June.....	White...		3		Ireland...	Ireland...	Laborer...
Menominee.....	Nov.....	White...	3			Sweden...	Sweden...	Miner...
Monroe.....	Dec.....	White...	2	1		Michigan...	New York.	Laborer...

## STILL-BIRTHS, 1881.

There were six hundred and ninety-one (691) still-born children reported for the year 1881,—a smaller number than has been returned for any year since 1876. 378 were males, 270 were females, and of 43 the sex was not reported. The per cent. of still-births to living births in 1881 was 1.99, or one still-born to every 49 born alive.

According to the evidence in Exhibit 7 a larger proportion of the still-births is born from foreign-born mothers than from native-born mothers.

The proportion of still-births among the white is much smaller than among those of the black and mulatto.

**EXHIBIT 6.**—*The Relation of Still-births to all Children Returned as having been Born in Michigan during the several Years 1873 to 1881, inclusive, and of the Mothers of Still-born Children to all Mothers Returned as having Borne Children during each of the Years 1873 to 1881, inclusive.*

CHILDREN AND MOTHERS.	TOTAL BIRTHS AND STILL-BIRTHS.								
	1873.	1874.	1875.	1876.	1877.	1878.	1879.	1880.	1881.
All Children born.....	34,608	31,151	31,958	34,235	33,395	35,162	34,122	35,923	34,749
Still-born Children.....	a 348	464	629	646	720	793	749	738	691
Per Cent. of Still-born to Total.....	1.01	1.49	1.97	1.89	2.15	2.26	2.20	2.09	1.99
All Mothers.....	34,180	30,739	31,586	33,791	33,028	34,729	33,716	34,953	34,367
Mothers of Still-born Children.....	333	454	613	620	697	765	723	723	678
Per Cent. of Mothers of Still-born Children to All Mothers.....	.97	1.48	1.94	1.83	2.11	2.20	2.14	2.07	1.97

a As per returns of births.

**EXHIBIT 7.**—*By Nativity and Color, the Number and Proportion of Mothers having Still-births in Michigan during the Years 1879, 1880, and 1881, according to the Returns.*

NATIVITY AND COLOR OF MOTHERS.	1879.			1880.			1881.		
	Mothers hav- ing Still- births.	Whole No. of Moth'rs, includ- ing those of Still- births.	Per Cent. of Mothers of Still- births to all Moth'rs.	Mothers hav- ing Still- births.	Whole No. of Moth'rs, includ- ing those of Still- births.	Per Cent. of Mothers of Still- births to all Moth'rs.	Mothers hav- ing Still- births.	Whole No. of Moth'rs, includ- ing those of Still- births.	Per Cent. of Mothers of Still- births to all Moth'rs.
Mothers of all colors and all nativities.....	723	33,716	2.14	723	34,953	2.07	678	34,367	1.97
All native mothers.....	367	19,777	1.86	371	20,223	1.83	352	20,001	1.76
All foreign mothers.....	280	13,338	2.10	285	13,961	2.04	272	13,608	2.00
Mothers of unknown nativities...	76	601	12.65	67	769	8.71	54	758	7.12
White .....	706	33,325	2.12	706	34,497	2.05	650	34,013	1.91
Black .....	4	132	3.03	4	127	3.15	6	116	5.17
Mulatto.....	2	93	2.11	3	72	4.17	5	82	6.10
Indian.....	1	122	.82	.....	146	.....	.....	93	.....
Unknown.....	10	42	23.81	10	111	9.01	17	63	26.98
Black and Mulatto.....	6	227	2.64	7	199	3.52	11	198	5.56



EXHIBIT 11.—*Occupations of Fathers of Still-born Children in Michigan in 1881, according to the Returns.*

FATHERS.				FATHERS.			
CHILDREN.				CHILDREN.			
OCCUPATIONS.	Males.	Fe- males.	Unk.	OCCUPATIONS.	Males.	Fe- males.	Unk.
Agricultural Agents.....	1			Lumber Manufacturers.....	1		
Architects.....	1			Machinists.....	2	2	1
Barbers.....	2	2		Marble-workers.....		1	
Blacksmiths.....	6	3	1	"Mantle and Grates".....		1	
Boller-makers.....	1			Masons.....	1	3	
Boller Manufacturers.....		1		Mechanics.....	2		
Book-keepers.....	1	1		Merchants.....	11	4	
Brakemen.....		1		Miners.....	11	8	7
Brewers.....	1	2		Ministers.....	1	2	
Butchers.....		1	1	Millers.....	1	4	1
Cabinet-makers.....		3		Mill-wrights.....		1	
Carpenters.....	17	6		Moulders.....	2		
Carpenters and Joiners.....	1			Musicians.....	1		
Carpet-weavers.....	1			Painters.....	1	1	1
Carriage-makers.....		1		Pail-makers.....	1		
Cheese-makers.....		1		Physicians.....		2	
Cigar Dealers.....		1		Plasterers.....		2	
Cigar-makers.....	4	3		Policemen.....	1		
Clerks.....	2			Polishers.....	1		
Coachmen.....		1		Printers.....	1		
Coal Dealers.....	1			R. R. Agents.....			1
Conductors.....		1		Railroaders.....	1		
Confectioners.....	1			R. R. Employes.....	1		
Contractors.....		1		R. R. Engineers.....	1		
Dentists.....	1			Real Estate Dealers.....	1		
Dress-makers.....	1			Restaurant-keepers.....	1		
Druggists.....	1			Sailors.....	2		
Engineers.....	3	6		Salesmen.....	1		
Expressmen.....		1		Saloon-keepers.....	2	2	
Farmers.....	158	124	17	Sawyers.....	2		
Farm Laborers.....		1		Shoe-makers.....	5	2	2
Finishers.....	1			Shoe-mounters.....		1	
Fishermen.....	3	1		Shingle Manufacturers.....	1		
Foremen of R. R. Yards.....	1			Ship-carpenters.....	1		
Furniture Dealers.....		1		Teamsters.....	5	3	
Gardeners.....		1		Traveling Agents.....	1		
Grocers.....	1			Tug Captains.....	1		
Harness-makers.....		1		Unknown.....	23	22	5
Hostlers.....		1		Vagabonds.....	1		
Hotel-keepers.....	1			Vessel Loaders.....	1		
Inspectors.....	1			Wood-carvers.....		1	
Insurance Agents.....	1			Wood-turners.....		1	
Laborers.....	74	36	6	Wood-sawyers.....	1		
Lawyers.....		1		Wood-workers.....		1	
Lumbermen.....	1	3					

Statistics concerning the nativity of the parents of still-born children may be studied further in Tables XIV. and XV.

TABLE XIV.—*Exhibiting, by Sex, the Parent-Nativity, and by Sex and by Months, the Number of Still-births in Michigan during the Year 1881, according to the Returns.*

SEX.	YEAR, 1881.	MONTHS, 1881.												NATIVITY OF PARENTS OF STILL-BIRTHS, 1881.															
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.	PARENTS BORN IN MICHIGAN.	NATIVE.				FOREIGN.				MOTHER FATHER UNK. UNK.				Both Unknown.	
		Total.	Same State.	Different States.	Total.	Same Country.	Different Coun- tries.	Foreign Father and Na- tive Mother.	Foreign Mother and Na- tive Father.	Native.	Foreign.	Native.	Foreign.	Father.		Mother.	Native.	Foreign.	Native.	Foreign.									
Total.....	a 691	44	55	46	41	54	69	53	64	57	55	58	93	2	371	309	292	169	123	235	194	41	60	37	6	3	10	2	46
Males.....	b 378	23	28	31	31	27	34	30	37	29	30	32	44	2	94	118	164	91	73	125	97	28	31	22	5	2	7	1	21
Females..	c 270	18	22	15	10	22	32	17	23	25	24	21	41	—	71	82	116	72	44	93	82	11	25	14	—	—	3	1	18
Unknown	d 43	2	5	—	—	5	3	6	4	3	1	5	8	—	6	9	12	6	6	17	15	2	4	1	1	—	—	—	7

a 4 pairs and 6 half pairs male twins; 4 pairs and 1 half pair female twins; 3 pairs, one of each sex; and 1 set of triplets.

b 10 twin children, 2 triplet children, 8 illegitimate, 3 Black, 1 "Colored," and 2 Mulatto.

c 1 twin child, 1 triplet child, 5 illegitimate, 2 Black, and 1 Mulatto.

d 26 White, and 17 color unknown.



TABLE XV.—*Parent-Nativity of Still-born Children,—Exhibiting, by Sex, the Number and Per Cent. of Total Number Returned as having been Born in Michigan during the Year 1881, of Parents who were Natives of the Same and of Different States or Countries.*

NATIVITY OF PARENTS OF STILL-BORN CHILDREN, 1881.	STILL-BORN CHILDREN, 1881.							
	NUMBER.				PR. CT. OF EACH PARENT-NATIVITY TO TOTAL OF ALL NATIVITIES.			
	Total.	Males.	Fe-males.	Un-kno'n.	Total.	Males.	Fe-males.	Un-known.
All Nativities.....	691	378	270	43	100.00	100.00	100.00	100.00
Same American State or Foreign Country.....	363	188	154	21	52.53	49.74	57.04	48.84
Different American States or Foreign Countries.....	164	101	55	8	23.73	26.72	20.37	18.60
Foreign Father and Native Mother.....	60	31	25	4	8.63	8.20	9.26	9.30
Foreign Mother and Native Father.....	37	22	14	1	5.36	5.82	5.18	2.32
Unknown Mother, Father Native.....	6	5	.....	1	.87	1.32	.....	2.33
Unknown Mother, Father Foreign.....	3	2	.....	1	.43	.53	.....	2.33
Unknown Father, Mother Native.....	10	7	3	.....	1.45	1.85	1.11	.....
Unknown Father, Mother Foreign.....	2	1	1	.....	.29	.26	.37	.....
Both unknown.....	46	21	18	7	6.66	5.56	6.67	16.28
Different States or Countries.....	261	154	94	13	37.77	40.74	31.81	30.23
Native.....	292	164	116	12	42.26	43.39	42.96	27.91
Foreign.....	235	125	93	17	34.01	31.07	34.44	39.53

## ILLEGITIMATE CHILDREN, 1881.

The number of illegitimate children returned as having been born in Michigan during the year 1881, is 382. This is smaller by 43 than the number returned for 1880. The average annual number for the ten years 1872-1881, is 283, while the average for the thirteen years 1868-1880, is 233. The year 1880 showed the largest number of previous years, but the year 1881 is not far behind in point of numbers; the increase in the two years being quite important. The average per cent. of illegitimate children to all children born for the period of ten years 1872-1881, is .84, while the per cent. for 1881 is 1.10, or one illegitimate birth to every 90 born in wedlock.

Exhibit 9 contains data concerning the nativity and color of mothers of illegitimates. It is important to remember in this connection that the facts in regard to these births are very incomplete, it being in the nature of things very hard to get them. The largest per cent. of mothers of illegitimates to all mothers appears for the Black, and the smallest for the White. The proportion of the sexes among these children for the year 1881 was about equally divided, there being 99 males to 100 females.

Table XVII. contains some important evidence on this subject. It is seen that the birth-rate of illegitimates to population is largest among the Black and Mulatto, and smallest among the White.

EXHIBIT 8.—*The Relation of the Illegitimate Children to All Children Returned as having been Born during the several Years 1876 to 1881, inclusive, and of Mothers of Illegitimates to All Mothers Returned as having Borne Children in Michigan during each of the Years 1876 to 1881, inclusive.*

CHILDREN AND MOTHERS.	TOTAL BIRTHS AND ILLEGITIMATES.					
	1876.	1877.	1878.	1879.	1880.	1881.
All Children born.....	34,235	33,395	35,162	34,122	35,323	34,749
Illegitimate Children.....	266	316	a 202	292	425	382
Per Cent. of Illegitimates to Total.....	.78	.95	.57	.86	1.20	1.10
All Mothers.....	33,791	33,028	34,729	33,716	34,953	34,367
Mothers of Illegitimate Children.....	262	312	a 202	289	423	375
Per Cent. of Mothers of Illegitimates to All Mothers.....	.78	.94	.58	.86	1.21	1.10

\* The number of illegitimates returned for Wayne county for 1878 is probably too small by about 70 births. Heretofore the children born in the "Foundlings' Home," in the ninth ward of Detroit, have generally been returned as illegitimate; but we are unable to get any such statement for 1878, although there is no doubt that those children whose fathers' names are reported "Unknown" (the mothers' names being given), in the said ninth ward, are illegitimate.

EXHIBIT 9.—*By Nativity and Color, the Number and Proportion of Mothers of Illegitimate Children Returned as having been Born in Michigan during the Years 1879 to 1881, inclusive.*

NATIVITY AND COLOR OF MOTHERS.	1879.			1880.			1881.		
	Moth-ers hav-ing Il-legiti-mates.	Whole No. of Mothers includ-ing those of Illegiti-mates.	Per Ct. of Mothers of Illegiti-mates to all Moth'rs.	Moth-ers hav-ing Il-legiti-mates.	Whole No. of Mothers includ-ing those of Illegiti-mates.	Per Ct. of Mothers of Illegiti-mates to all Moth'rs.	Moth-ers hav-ing Il-legiti-mates.	Whole No. of Mothers includ-ing those of Illegiti-mates.	Per Ct. of Mothers of Illegiti-mates to all Moth'rs.
Mothers of all colors and all nativities.....	289	33,716	.86	423	34,953	1.21	378	34,367	1.10
All Native Mothers.....	136	19,777	.69	147	20,223	.73	185	20,001	.92
All Foreign Mothers.....	89	13,338	.67	72	13,961	.52	96	13,608	.71
Mothers of unknown nativities.....	64	601	10.65	204	769	26.53	97	758	12.80
White.....	266	33,325	.80	408	34,497	1.18	365	34,013	1.07
Black.....	7	132	5.30	4	127	3.15	6	116	5.17
Mulatto.....	4	95	4.21	3	72	4.17	3	82	3.66
Indian.....	a 11	122	9.02	7	146	4.79	4	93	4.30
Unknown.....	1	42	2.38	1	111	.90	.....	63	.....
Black and Mulatto.....	11	227	4.85	7	199	3.62	9	198	4.55

\* 1 female half Indian; 1 male and 2 females White and Indian.

TABLE XVI.—Exhibiting, by Sex, the Total Number, Number by Months, and the Nativity of Parents of Illegitimate Children Born in Michigan, during the Year ending December 31, 1881, according to the Returns.

SEX.	YEAR, 1881.	MONTHS, 1881.												NATIVITY OF MOTHERS OF ILLEGITIMATE CHILDREN, 1881.					NATIVITY OF FATHERS OF ILLEGITIMATE CHILDREN, 1881.														
														NATIVE.					FOREIGN.					NATIVE.					FOREIGN.				
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.	Total.	Born in Mich-igan.	Born in Other States.	Total.	Born in Can-ada.	Born in Other Countries.	Unknown.	Total.	Born in Mich-igan.	Born in Other States.	Total.	Born in Can-ada.	Born in Other Countries.	Unknown.					
Total.....	a 382	24	27	30	35	38	34	35	25	34	34	26	40	...	187	117	70	98	52	46	697	35	26	9	33	16	17	314	...				
Males....	c 190	10	18	12	15	22	18	18	15	16	15	15	16	...	88	50	38	54	25	29	48	15	13	2	18	10	8	157	...				
Females..	d 191	14	9	18	20	16	16	17	10	18	19	10	24	...	98	66	32	44	27	17	49	20	13	7	15	6	9	156	...				
Unknown	1	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...			

a 8 males and 5 females still-born; 2 pairs male twins, 1 pair female twins, and 1 pair one of each sex.  
 1 male "America."  
 c 1 Black, 3 "Colored," and 3 Indian.  
 d 2 Black, 4 Mulatto, and 1 Indian.

TABLE XVII.—*Exhibiting, by Color and by Sex, the Population June 1, 1880, the Number of Illegitimate Children Returned as having been Born in Michigan during the Year 1881, the Per Cent. of such Children to Inhabitants, the Per Cent. of each Sex to the Total of both Sexes, and the Number of Inhabitants to each Illegitimate Child Reported.*

COLOR OR RACE.	Sex.	Population June 1, 1880, Represented by Births in 1881.	Total Illegitimate Births, 1881.	Per Cent. of Births to Population.	Per Cent. of Each Sex to Total of Both Sexes.	Number of Inhabitants to one Illegitimate Child of the same Color.
All Colors .....	Total .....	*1,629,635	382	.02	-----	4,296
	Males .....	837,968	190	.02	49.87	4,516
	Females .....	771,687	191	.02	50.13	4,040
	Unknown .....	-----	1	-----	-----	-----
White .....	Total .....	1,607,496	368	.02	-----	4,368
	Males .....	-----	183	-----	49.86	-----
	Females .....	-----	184	-----	50.14	-----
	Unknown .....	-----	1	-----	-----	-----
Black .....	Total .....	-----	6	-----	-----	-----
	Males .....	-----	4	-----	66.67	-----
	Females .....	-----	2	-----	33.33	-----
Mulatto .....	Total .....	-----	4	-----	-----	-----
	Males .....	-----	-----	-----	-----	-----
	Females .....	-----	4	-----	100.00	-----
Indian .....	Total .....	7,044	4	.06	-----	1,761
	Males .....	-----	3	-----	75.00	-----
	Females .....	-----	1	-----	25.00	-----
Unknown .....	Total .....	-----	-----	-----	-----	-----
	Males .....	-----	-----	-----	-----	-----
	Females .....	-----	-----	-----	-----	-----
Black and Mulatto .....	Total .....	15,087	10	.07	-----	1,509
	Males .....	-----	4	-----	40.00	-----
	Females .....	-----	6	-----	60.00	-----

\* Includes 28 Asiatics.



TABLE XX.—*Exhibiting the Number of Males to 100 Females among Twin Children, and the Number of Illegitimate and Still-born Children, Born during the Year 1881.*

STATE AND COUNTIES.	Twin Chil- dren,— Number of Males to 100 Females.	Number of Illegiti- mate Chil- dren born in 1881.	Number of Still- births in 1881.	COUNTIES.	Twin Chil- dren,— Number of Males to 100 Females.	Number of Illegiti- mate Chil- dren born in 1881.	Number of Still- births in 1881.
State.....	107	382	691	Leelanaw.....	b	2	1
Alcona.....	a	.....	1	Lenawee.....	100	3	6
Allegan.....	117	4	23	Livingston.....	a	1	10
Alpena.....	60	2	3	Mackinac.....	.....	1	.....
Antrim.....	a	2	3	Macomb.....	50	2	11
Baraga.....	.....	1	1	Manistee.....	56	3	6
Barry.....	56	5	10	Manitou.....	a	.....	.....
Bay.....	140	2	21	Marquette.....	140	1	26
Benzie.....	33	1	4	Mason.....	100	.....	1
Berrien.....	500	3	8	Mecosta.....	220	.....	5
Branch.....	b	5	6	Menominee.....	50	.....	3
Calhoun.....	100	3	11	Midland.....	a	.....	8
Cass.....	233	5	8	Missaukee.....	.....	.....	1
Charlevoix.....	500	1	.....	Monroe.....	186	1	20
Cheboygan.....	b	2	5	Montcalm.....	157	.....	8
Chippewa.....	.....	1	2	Montmorency.....	100	.....	1
Clare.....	100	.....	1	Muskegon.....	433	4	8
Clinton.....	.....	.....	5	Newaygo.....	200	1	1
Delta.....	100	1	3	Oakland.....	200	7	14
Eaton.....	b	4	9	Oceana.....	100	1	11
Emmet.....	500	3	1	Ogemaw.....	b	2	1
Genesee.....	61	5	11	Ontonagon.....	.....	.....	1
Gladwin.....	.....	.....	1	Osceola.....	33	2	5
Grand Traverse..	100	.....	5	Otsego.....	b	.....	1
Graiot.....	67	3	7	Ottawa.....	75	4	16
Hilledale.....	233	2	9	Presque Isle.....	.....	.....	2
Houghton.....	100	5	24	Roscommon.....	.....	.....	1
Huron.....	167	1	8	Saginaw.....	88	13	49
Ingham.....	160	3	6	Sanilac.....	14	3	12
Ionia.....	100	.....	12	Shlawassee.....	500	2	9
Iosco.....	100	.....	4	St. Clair.....	129	5	23
Isabella.....	500	.....	4	St. Joseph.....	67	10	12
Jackson.....	69	2	11	Tuscola.....	140	3	18
Kalamazoo.....	57	3	10	Van Buren.....	200	6	11
Kalkaska.....	a	.....	2	Washtenaw.....	69	4	13
Kent.....	100	23	28	Wayne.....	74	203	91
Keweenaw.....	500	3	3	Wexford.....	100	1	2
Lapeer.....	167	2	13				

a No males.

b No females.

TABLE XVIII.—*Exhibiting the Number of Males to 100 Females, and by Sex, the Number and Per Cent. of Total Number of Illegitimate Children Born of Native and of Foreign-born Parents, in Michigan, during the Year 1881, according to the Returns.*

NATIVITY OF PARENTS OF ILLEGITIMATE CHILDREN, 1881.		ILLEGITIMATE CHILDREN, 1881.								
		Number of Males to 100 Fe- males.	NUMBER.				PER CENT. OF TOTAL.			
			Total.	Males.	Fe- males.	Unk.	Total.	Males.	Fe- males.	Unk.
All Nativities.....		99.48	382	190	191	1	100.00	100.00	100.00	100.00
Mothers.....	{ Native.....	89.80	187	88	98	1	48.95	46.32	51.31	100.00
	{ Foreign.....	122.73	98	54	44	-----	25.65	28.42	23.04	-----
	{ Unknown.....	97.96	97	48	49	-----	25.39	25.26	25.65	-----
Fathers.....	{ Native.....	75.00	35	15	20	-----	9.16	7.89	10.47	-----
	{ Foreign.....	120.60	33	18	15	-----	8.64	9.47	7.85	-----
	{ Unknown.....	100.64	314	157	156	1	82.20	82.63	81.68	100.00

The following exhibit shows the townships in this State in which it was reported that no births occurred in 1881. It also gives the population of these townships and the counties in which they are located. These townships represent a population of 1,895, but it seems hardly probable that no births occurred in the township of Wilcox, Newaygo county, which has a population of 850.

EXHIBIT 10.—*Townships in which it is Reported that there were No Births in 1881.*

COUNTIES.	TOWNSHIPS,—NO BIRTHS IN 1881.	POPULATION IN 1880.		
		Total.	Males.	Females.
Total.....		1,895	1,351	544
Baraga.....	Spurr.....	120	78	42
Benzie.....	Lake.....	42	26	16
Lake.....	{ Eden.....	92	49	43
	{ Lake.....	90	57	33
	{ Yates.....	257	142	115
Newaygo.....	Wilcox.....	850	609	241
Roscommon.....	{ Denton.....	210	162	48
	{ Nester.....	234	225	6

There were 20 townships and one entire county from which no returns of births were received for the year 1881. Table XXI. gives the names of these townships and their population in 1880. It should not be necessary for us to make a table of this kind, and it would not be if all the supervisors of the State would do their duty and comply with the law.





## SEX OF CHILDREN.

The statistics of births in 1881, in Michigan, are in harmony with those of previous years concerning the proportional number of the two sexes, the excess of male births, and the influences of season of year, parent-nativity, etc., upon the sex of offspring. The tables and exhibits which follow contain much that is interesting and important in regard to this subject. Attention may be called to Exhibits N, O, and P, which give, respectively, the number of births by months, as they are returned, as equalized to months of equal length, and as corrected for omissions in the enumeration.

TABLE XXII.—*Exhibiting, by Months, the Relation between the Total Number of Conceptions during certain Months of the Years 1880-81, and the Proportion of each Sex Conceived during the same time and Born during the Year ending December 31, 1881, according to the Returns.*

CONCEPTIONS FOR BIRTHS IN 1881. <sup>a</sup>					
Months of 1880 and 1881 of Conceptions of Births in 1881, in order by number, the least first.		Total Number of Conceptions. <sup>b</sup>	<sup>a</sup> Months of 1880 and 1881, in order by number of Males to 100 Females, greatest first.		Number of Males to 100 Females.
Less than the Average Number of Conceptions.	April.....	2,347	More than the Average Proportion of Males.	July.....	116
	May.....	2,637		April.....	112
	September.....	2,748		January, 1881..... <sup>c</sup>	112
	June.....	2,781		September.....	109
	August.....	2,830		October..... <sup>c</sup>	109
	July.....	2,845			
	February, 1881.....	2,888		Average.....	
Average.....		2,889			
More than the Average Number of Conceptions.	October.....	2,968	Less than the Average Proportion of Males.	May..... <sup>c</sup>	108
	January, 1881.....	3,020		June..... <sup>c</sup>	106
	March, 1881.....	3,113		March, 1881.....	106
	December.....	3,246		August..... <sup>c</sup>	104
	November.....	3,249		November.....	104
				December.....	104
			February, 1881..... <sup>c</sup>	102	

<sup>a</sup> Equalized to months of 30.44 days each, and excluding unknown sex and unknown month.

<sup>b</sup> For purposes of this study the time of conception is presumed to be nine calendar months previous to the month of birth.

<sup>c</sup> Exceptions to the proposition that more than the average proportion of males were conceived in months in which less than the average total number of conceptions occurred, and vice versa.

**TABLE XXIII.**—*Exhibiting, by Months, the Relation between the Number of Conceptions and the Number of Males to 100 Females. Conceptions estimated from Births Corrected as if Enumerated in Months of Occurrence and Equalized to Months of uniform length.*

CONCEPTIONS FOR BIRTHS, 1881. <sup>a</sup>					
Months of 1880 and 1881 of Conceptions of Births in 1881, estimated from Births Corrected as if enumerated in months of occurrence, and equalized to months of uniform length. Months arranged in order by number, the least first.		Number of Conceptions as Corrected and Equalized. <sup>b</sup>	Months of 1880 and 1881 of Conceptions of Births in 1881, estimated from Births Corrected as if enumerated in months of occurrence, and equalized to months of uniform length. Months arranged in order by number of Males to 100 Females, greatest first.		Number of Males to 100 Females. Births Corrected and Equalized.
Less than the Average No. of Conceptions.	February, 1881.....	3,617	More than the Average Proportion of Males.	July..... <sup>c</sup>	120
	March, 1881.....	3,767		April.....	116
	January, 1881.....	3,910		January, 1881.....	114
	April.....	3,930		September.....	112
	September.....	4,021		October..... <sup>c</sup>	112
Average.....		4,138	Average.....		110.5
More than the Average No. of Conceptions.	October.....	4,214	Less than the Average Proportion of Males.	May.....	110
	August.....	4,259		June.....	110
	May.....	4,300		March, 1881..... <sup>c</sup>	108
	December.....	4,338		August.....	107
	July.....	4,406		December.....	107
	June.....	4,419		November.....	106
	November.....	4,478		February, 1881..... <sup>c</sup>	104

<sup>a</sup> See foot-note <sup>b</sup> to Table XXII., page 61.

<sup>b</sup> Excluding unknown month and unknown sex.

<sup>c</sup> Exceptions to the proposition that *more* than the average proportion of males were conceived in months in which *less* than the average number of conceptions occurred, and *less* than the average proportion of males in months in which *more* than the average number of conceptions occurred.

9—1881.

**TABLE XXIV.**—*Exhibiting by Months, according to the Returns, the Relation between the Total Number of Conceptions, and the Total Number of Deaths which occurred in the Months of the Years 1880 and 1881 in which were Conceived the Children Born during the Year ending December 31, 1881.*

DEATHS.			CONCEPTIONS. <sup>b</sup>		
Months <sup>a</sup> of 1880 and 1881 of Conceptions of Births in 1881, arranged in order by Total Number of Deaths, the least first.		Number of Deaths, as Equalized.	Months <sup>a</sup> of 1880 and 1881 of Conceptions of Births in 1881, in order by number, the least first.		Number of Conceptions, as Equalized. <sup>a</sup>
Less than the Av. No. of Deaths.	January, 1881.....	1,046	Less than the Average Number of Conceptions.	April..... <sup>c</sup>	2,380
	June.....	1,061		May..... <sup>c</sup>	2,644
	May.....	1,145		September.....	2,732
	February, 1881.....	1,171		June..... <sup>c</sup>	2,784
	March, 1881.....	1,222		August.....	2,835
	April.....	1,308		July.....	2,846
Average.....		1,375	Average.....		2,894
More than the Av. No. of Deaths.	October.....	1,445	More than the Av. No. of Conceptions.	February, 1881.....	2,896
	July.....	1,500		October..... <sup>c</sup>	2,978
	November.....	1,508		January, 1881.....	3,023
	December.....	1,588		March, 1881.....	3,153
	September.....	1,701		December..... <sup>c</sup>	3,251
	August.....	1,748		November..... <sup>c</sup>	3,254

<sup>a</sup> Equalized to months of 30.44 days each, excluding unknown month.

<sup>b</sup> See foot-note <sup>b</sup> to table XXII., page 64.

<sup>c</sup> Exceptions to the proposition that there were more than an average number of conceptions in months in which less than an average number of deaths occurred, and less than an average number in months in which more than an average number of deaths occurred.

**TABLE XXV.**—*Exhibiting the Relation, by Months, between the Number of Conceptions and the Number of Deaths, the Number of Deaths and the Number of Births Returned from which Conceptions are estimated, being Corrected as if Enumerated in Months of Occurrence, and Equalized to Months of uniform length.*

DEATHS.		CONCEPTIONS. <sup>a</sup>			
Months of 1880 and 1881 of Conceptions of Births in 1881, arranged in order by number of Deaths, the least first. Deaths Corrected as if enumerated in months of occurrence, and equalized to months of uniform length.	Number of Deaths, as Corrected and Equalized.	Months of 1880 and 1881 of Conceptions of Births in 1881, estimated from Births Corrected as if enumerated in months of occurrence, and equalized to months of uniform length. Months arranged in order by number, the least first.	Number of Conceptions, as Corrected and Equalized. <sup>b</sup>		
Less than the Average Number of Deaths.	January, 1881.....	1,766	Less than the Av. No. of Conceptions.	February, 1881..... <sup>c</sup>	3,631
	June.....	1,790		March, 1881..... <sup>c</sup>	3,782
	February, 1881.....	1,929		January, 1881..... <sup>c</sup>	3,918
	May.....	2,023		April.....	3,941
	March, 1881.....	2,069		September.....	4,032
	November.....	2,085	Average.....	4,151	
	October.....	2,090	More than the Average Number of Conceptions.	October.....	4,230
	December.....	2,094		August..... <sup>c</sup>	4,274
Average.....	2,168	May.....		4,321	
More than the Av. No. of Deaths.	April.....	2,394		December.....	4,352
	July.....	2,457	July..... <sup>c</sup>	4,412	
	September.....	2,569	June.....	4,432	
	August.....	2,752	November.....	4,492	

<sup>a</sup> See foot-note <sup>b</sup> to Table XXII., page 64.

<sup>b</sup> Excluding unknown month.

<sup>c</sup> Exceptions to the proposition that there were *more* than an average number of conceptions in months in which *less* than an average number of deaths occurred, and *less* than an average number of conceptions in months in which *more* than an average number of deaths occurred.



**TABLE XXVI.**—*Exhibiting by Months, the Relation between the Number of Deaths and the Proportion of each Sex Conceived during the same Months of the Years 1880 and 1881; the Number of Deaths and the Number of Births Returned from which Conceptions are estimated being Corrected as if Enumerated in Months of Occurrence, and Equalized to Months of uniform length.*

DEATHS.		CONCEPTIONS. <sup>a</sup>		
Months of 1880 and 1881 of Conceptions of Births in 1881, arranged in order by number of Deaths, least first. Deaths Corrected as if enumerated in months of occurrence, and equalized to months of uniform length.	Number of Deaths, as Corrected and Equalized.	Months of 1880 and 1881 of Conceptions of Births in 1881, estimated from Births Corrected as if enumerated in months of occurrence, and equalized to months of uniform length. Months arranged in order by number of Males to 100 Females, greatest first.	Number of Males to 100 Females. Births Corrected and Equalized. <sup>b</sup>	
Less than the Average Number of Deaths.	January, 1881.....	1,705	July.....	129
	June.....	1,790	April.....	116
	February, 1881.....	1,929	January, 1881.....	114
	May.....	2,023	September.....	112
	March, 1881.....	2,069	October.....	112
	November.....	2,065	Average.....	110.5
	October.....	2,060		
	December.....	2,094		
Average.....	2,077			
More than the Av. No. of Deaths.	April.....	2,094	May.....	110
	July.....	2,057	June.....	110
	September.....	2,060	March, 1881.....	106
	August.....	2,072	August.....	107
			November.....	107
			November.....	106
		February, 1881.....	104	

<sup>a</sup> See foot-note to Table XIII., page 64.

<sup>b</sup> Including births in unknown month and of unknown sex.

<sup>c</sup> Proportions that were less than an average proportion of males were conceptively

less than an average number of deaths occurred, and less than an average

more than an average number of deaths occurred.

TABLE XXVII.—*Exhibiting by Months, according to the Returns, the Relation between the Total Number of Deaths and the Proportion of each Sex Conceived during the same Months of the Years 1880 and 1881, and Born during the Year ending December 31, 1881.*

DEATHS.			CONCEPTIONS. <sup>b</sup>		
Months of 1880 and 1881 of Conceptions of Births in 1881, arranged in order by Number of Deaths, the least first.		Number of Deaths, as Equalized.	Months <sup>a</sup> of 1880 and 1881, in order by number of Males to 100 Females, greatest first.		Number of Males to 100 Females.
Less than the Av. No. of Deaths.	January, 1881.....	1,046	More than the Av. Proportion of Males.	July .....	116
	June .....	1,061		April..... <sup>c</sup>	112
	May.....	1,145		January, 1881..... <sup>c</sup>	112
	February, 1881.....	1,171		September .....	109
	March, 1881.....	1,292		October.....	109
	April.....	1,308		Average .....	107
Average.....		1,375	Less than the Av. Proportion of Males.	May .....	106
More than the Average Number of Deaths.	October.....	1,445		June.....	106
	July.....	1,500		March, 1881.....	106
	November .....	1,508		August..... <sup>c</sup>	104
	December .....	1,588		November .....	104
	September.....	1,701		December .....	104
	August.....	1,748		February, 1881.....	102

<sup>a</sup> Equalized to months of 30.44 days each, excluding unknown sex and unknown month.

<sup>b</sup> See foot-note b to Table XXII., page 64.

<sup>c</sup> Exceptions to the proposition that *more* than an average proportion of males were conceived in months in which *less* than an average number of deaths occurred, and *less* than an average proportion of males in months in which *more* than an average number of deaths occurred.

## VITAL STATISTICS OF MICHIGAN, 1881.

EXHIBIT N.—*Births Returned as having occurred in Michigan during the Year 1881, by Sex, and by Months Equalized to 30.44 days each.*

SEX.	YEAR, 1881.	MONTHS OF BIRTHS, EQUALIZED, 1881.												
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
Total.....	34,760	2,350	2,644	2,784	2,846	2,835	2,752	2,973	3,254	3,251	3,023	2,608	3,122	30
Males.....	17,946	1,239	1,355	1,430	1,525	1,442	1,433	1,545	1,653	1,655	1,595	1,457	1,601	16
Females..	16,753	1,108	1,282	1,351	1,320	1,388	1,315	1,421	1,596	1,591	1,425	1,131	1,512	13
Unknown.	61	3	7	3	1	5	4	7	5	5	3	8	9	1

\* Five males and 6 females gained in equalizing, making the number shown in this Exhibit eleven more than the number returned.

EXHIBIT O.—*Births Returned as having occurred in Michigan during the Year 1881, by Sex, and by Months Equalized to 30.44 days each, and by Months, the Excess of Males over Females, and the Number of Males to 100 Females. Unknown Sex and unknown month excluded.*

SEX.	YEAR, 1881.	MONTHS OF BIRTHS, EQUALIZED, 1881.											
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Both Sexes.....	34,670	2,347	2,637	2,781	2,845	2,830	2,748	2,966	3,249	3,248	3,020	2,688	3,113
Males.....	17,930	1,239	1,355	1,430	1,525	1,442	1,433	1,545	1,653	1,655	1,595	1,457	1,601
Females.....	16,740	1,108	1,282	1,351	1,320	1,388	1,315	1,421	1,596	1,591	1,425	1,131	1,512
Excess of Males	1,190	131	73	79	205	54	118	124	57	64	170	36	89
Males to 100 Fe- males.....	107	112	108	106	116	104	109	109	104	101	112	102	106

\* The number of births of each sex, and the total number of both sexes, as equalized, do not equal the number of births as returned, because of the loss of fractions, and the unequal numbers in the several months, modified by addition and subtraction. This table excludes births in unknown month and of unknown sex,—90. These (minus the 11 gained in equalizing), added to the number shown in this table, make the number as returned by registration officers (34,749).

EXHIBIT P.—*Births Returned as having occurred in Michigan during the Year 1881, by Sex and by Months, Corrected for Omissions in Enumerating. Equalized for Increase of Population during the Year covered by the Returns, and as thus corrected and Equalized for the several Months, Equalized for Months of 30.44 days each.*

SEX.	YEAR, 1881.	MONTHS OF BIRTH, 1881.											
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Both Sexes...	50,816	4,095	4,467	4,575	4,515	4,379	4,121	4,304	4,536	4,400	3,952	3,642	3,760
Males.....	26,677	2,203	2,337	2,394	2,476	2,269	2,181	2,273	2,349	2,271	2,100	1,856	1,960
Females.....	24,139	1,892	2,130	2,181	2,039	2,111	1,940	2,031	2,207	2,129	1,843	1,786	1,800

**TABLE XXVIII.**—*Exhibiting for the Total Births, for the Twins, Illegitimate, and Still-born Children Returned as having been Born in Michigan during the Year 1881; the Number of Boys to 100 Girls among such Children, distinguishing by Parent-Nativities, thus exhibiting the Influence of Parent-Nativity and of other Conditions upon the Sex of Children.*

NATIVITY OF PARENTS.	BIRTHS, 1881. <sup>a</sup>		BOYS TO 100 GIRLS.				
	Males.	Females.	Total Births.	Twin Children.	Illegiti- mates.	Still- births.	
All Nativities.....	17,941	18,747	107.13	106.67	99.48	140.00	
Both Parents Native.....	8,183	7,706	106.19	104.73	-----	141.38	
Both Parents Foreign.....	5,941	5,599	106.11	96.50	-----	134.41	
Foreign Father and Native Mother..	2,136	1,937	110.27	115.38	-----	124.00	
Foreign Mother and Native Father..	1,116	958	116.49	185.71	-----	157.14	
One or Both Unknown.....	565	547	103.29	100.00	-----	163.64	
Mothers. {	Native.....	10,433	9,768	106.81	105.66	89.80	140.28
	Foreign.....	7,133	6,611	107.90	106.76	122.73	137.04
	Unknown.....	375	368	101.90	-----	97.96	165.56
Fathers. {	Native.....	9,394	8,755	107.30	112.02	75.00	146.92
	Foreign.....	8,150	7,627	106.86	102.83	120.00	133.90
	Unknown.....	397	365	108.77	60.00	164.00	131.82
One or Both Native.....	11,644	10,817	107.65	111.50	-----	144.94	
One or Both Foreign.....	9,343	8,639	106.14	106.54	-----	136.09	
Both Unknown.....	207	186	111.20	-----	-----	116.67	
Same Country.....	14,124	13,305	106.16	104.48	-----	131.82	
Different Countries.....	3,252	2,895	112.33	113.79	-----	162.00	
Same American State or Foreign Country.....	-----	-----	-----	112.02	-----	122.06	
Different American States or Foreign Countries.....	-----	-----	-----	86.55	-----	183.64	

<sup>a</sup> Excluding unknown sex.

## MARRIAGES, 1881.

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The whole number of marriages whose returns were received at the State Department in 1881 was 14,847. In 1880 the number was 14,660. The marriage-rate in 1880, the number of marriages to every thousand of the population, was 8.62, or one marriage to every 116 persons in the State. The estimated population of the State for the year 1881 is 1,690,809; now leaving out the population of Isle Royal county, from which no returns of marriages were received for 1881, we have 1,690,752 as the estimated inhabitants of the State represented by the returns of marriages. In 1881, therefore, there was one marriage to every 114 persons in the State, and the number of marriages to every thousand of the population was 8.77. It is not probable that the returns of marriages for 1881 are complete; but the error in this respect is hardly greater in this year than in the previous years. Judging from the past, the returns for subsequent years will doubtless increase the number solemnized in 1881 by more than a thousand marriages.

The total number of marriages, and the average number for each of certain specified periods of time are as follows:

Total number of marriages.....	14,847.00
Average number per quarter.....	3,711.75
Average number per month.....	1,237.25
Average number per week.....	285.52
Average number per day.....	40.68

As usual, the largest number of marriages occurred in the latter half of the year 1881; the largest number in any one quarter being 4,471 in the fourth quarter; the smallest quarterly total being 3,368 in the second quarter. The marriages in Table I. are corrected for additional returns up to May 11, 1883, that being the time of making the compilation for 1881.



TABLE I.—*Marriages by Quarters of the Year, showing the Number and Per Cent. in each Quarter of the Year for each of the Years 1876 to 1881, inclusive, Corrected for Additional Returns, up to May 11, 1883.*

TOTALS, AND MONTHS WITH WHICH QUARTERS END.	1876.		1877.		1878.		1879.		1880.		1881.	
	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.
Totals.....	11,893	100.00	11,844	100.00	12,829	100.00	13,816	100.00	14,660	100.00	14,847	100.00
March.....	2,711	22.80	2,708	22.86	2,989	23.30	3,003	22.39	3,300	22.51	3,376	22.74
June.....	2,639	22.19	2,547	21.50	2,685	20.93	2,878	20.83	3,199	21.82	3,368	22.69
September.....	2,863	24.07	2,829	23.89	3,022	23.55	3,255	23.56	3,561	24.29	3,630	24.45
December.....	3,674	30.89	3,748	31.65	4,123	32.14	4,586	33.19	4,597	31.36	4,471	30.11
Unknown.....	6	.05	12	.10	10	.08	4	.03	3	.02	2	.01
Average *.....	2,973	25.00	2,981	25.00	3,207	25.00	3,454	25.00	3,665	25.00	3,712	25.00

\* Including marriages in unknown quarter of the year.

Exhibit A differs from Table I., as it shows the number of marriages as originally returned, compiled, and published for each of the years 1876-1881, the additional returns not being added as in Table I. A comparison of the exhibit with the table will show how frequently the law is violated in this State.

EXHIBIT A.—*Marriages by Quarters of the Year, showing number and Per Cent. in each Quarter of the Year, for each of the Years 1876 to 1881, inclusive, as Originally Returned and published in Reports.*

TOTALS, AND MONTHS WITH WHICH QUARTERS END.	1876.		1877.		1878.		1879.		1880.		1881.	
	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.	Num- ber.	Per Cent.
Totals.....	10,858	100.00	11,009	100.00	12,221	100.00	13,225	100.00	14,149	100.00	14,847	100.00
March.....	2,599	23.94	2,633	23.92	2,901	23.74	3,039	22.98	3,261	23.06	3,376	22.74
June.....	2,474	22.79	2,422	22.00	2,606	21.32	2,806	21.22	3,151	22.27	3,368	22.69
September.....	2,677	24.65	2,646	24.03	2,906	23.78	3,133	23.69	3,472	24.54	3,630	24.45
December.....	3,105	28.60	3,298	29.96	3,798	31.08	4,243	32.08	4,262	30.12	4,471	30.11
Unknown.....	3	.03	10	.09	10	.08	4	.03	3	.02	2	.01
Average.....	2,715	25.00	2,752	25.00	3,055	25.00	3,306	25.00	3,537	25.00	3,712	25.00

\* The number in unknown quarter of year included.

Table II. shows, by months, the number and per cent. of marriages returned as having been solemnized in this State during the years 1878-1881. The months are arranged in order, those having the greatest number are placed first. In 1881 the largest number in any one month was 1,557 in October; the smallest, 1,042, in August. The smallest monthly total is usually found in the months of June or August.

TABLE II.—*Marriages by Months, Arranged in Order by Number, Months having the greatest number first, for the Years 1878 to 1881, inclusive, Corrected, for additional returns, up to May 11, 1883.*

Order.	1878.			1879.			1880.			1881.		
	Months.	Number.	Per Ct. of Total.	Months.	Number.	Per Ct. of Total.	Months.	Number.	Per Ct. of Total.	Months.	Number.	Per Ct. of Total.
	Total....	12,829	100.00	Total ...	13,816	100.00	Total....	14,660	100.00	Total.....	14,847	100.00
1	Oct.....	1,401	10.92	Oct.....	1,571	11.37	Nov.....	1,559	10.84	Oct.....	1,557	10.49
2	Dec.....	1,393	10.86	Nov.....	1,538	11.13	Dec.....	1,549	10.67	Nov.....	1,496	10.06
3	Nov.....	1,320	10.36	Dec.....	1,477	10.69	Oct.....	1,459	9.96	Dec.....	1,418	9.55
4	Sept.....	1,183	9.24	Sept.....	1,267	9.17	Sept.....	1,373	9.37	Sept.....	1,341	9.03
5	Jan.....	1,060	8.49	Jan.....	1,077	7.80	Jan.....	1,167	7.96	July.....	1,247	8.40
6	Mar.....	1,019	7.94	July.....	1,068	7.72	April.....	1,142	7.79	Jan.....	1,162	7.83
7	May.....	961	7.49	Mar.....	1,029	7.45	July.....	1,132	7.72	May.....	1,162	7.83
8	April.....	947	7.38	May.....	1,016	7.35	Mar.....	1,084	7.39	Mar.....	1,155	7.78
9	July.....	940	7.33	Feb.....	987	7.14	Aug.....	1,056	7.20	April.....	1,117	7.52
10	Aug.....	897	6.99	Apr.....	963	7.12	Feb.....	1,049	7.16	June.....	1,069	7.33
11	Feb.....	881	6.87	Aug.....	922	6.67	May.....	1,039	7.09	Feb.....	1,069	7.13
12	June.....	777	6.06	June.....	879	6.36	June.....	1,013	6.94	Aug.....	1,042	7.02
	Unk.....	10	.08	Unk.....	4	.03	Unk.....	3	.02	Unk.....	2	.01
	Average.	1,069	8.33	Average.	1,151	8.33	Average.	1,222	8.33	Average.	1,237	8.33

\* Includes those for unknown month.

In Exhibit B the number of marriages, as returned for each of the years 1877-1881, are corrected for additional returns up to May 11, 1883, and then equalized to months of uniform length. By comparing the first line of the exhibit with the fourth line for each of the years, the changes can be seen which are made by equalizing the months to uniform length. Exhibit B also shows the relations which the number of marriages in the different months of the year, bear to each other, and also the months most preferred for matrimony by Michigan people.

# MARRIAGES BY MONTHS.

75

*Marrriages Returned as having been Solemnized in Michigan during the Years 1877 to 1881, inclusive, for additional returns, up to May 11, 1883, and Equalized to Months of 30.44 days each.*

YEAR.	TOTAL.	MONTHS.												Unk.
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
Years terminated by which the months should be increased or diminished to equalize them to uniform length. 1877	11,844	975	851	882	942	885	740	940	785	1,104	1,243	1,227	1,278	12
Years terminated by which the months should be increased or diminished to equalize them to months of uniform length.	7	-56	+2.44	-56	+44	-56	+44	-56	-56	+44	-56	+44	-56	-----
Marrriages, equalized to months of uniform length.....	11,851	957	925	864	966	849	751	923	771	1,120	1,231	1,245	1,253	12
Marrriages as returned	12,229	1,069	881	1,019	947	961	777	940	897	1,185	1,401	1,329	1,393	10
Days and hundredths by which the months should be increased or diminished to equalize them to uniform length.	-----	-56	+2.44	-56	+44	-56	+44	-56	-56	+44	-56	+44	-56	-----
Number by which the marriages should be increased or diminished to equalize them to months of uniform length.	-----	-20	+77	-18	+14	-17	+11	-17	-16	+17	-25	+19	-23	-----
Marrriages, equalized to months of uniform length.....	12,629	1,069	958	1,001	981	944	788	923	881	1,202	1,370	1,348	1,368	10
Marrriages as returned	13,916	1,077	987	1,029	983	1,016	879	1,006	922	1,267	1,571	1,538	1,477	4
Days and hundredths by which the months should be increased or diminished to equalize them to uniform length.	-----	-56	+2.44	-56	+44	-56	+44	-56	-56	+44	-56	+44	-56	-----
Number by which the marriages should be increased or diminished to equalize them to months of uniform length.	+8	-19	+86	-19	+14	-18	+13	-19	-17	+19	-26	+23	-27	-----
Marrriages, equalized to months of uniform length.....	13,924	1,068	1,073	1,010	997	998	882	1,047	905	1,280	1,543	1,561	1,450	4
Marrriages as returned	14,860	1,167	1,049	1,084	1,142	1,039	1,018	1,182	1,066	1,373	1,459	1,689	1,549	3
Days and hundredths by which the months should be increased or diminished to equalize them to uniform length.	-----	-56	+1.44	-56	+44	-56	+44	-56	-56	+44	-56	+44	-56	-----
Number by which the marriages should be increased or diminished to equalize them to months of uniform length.	-28	-21	+52	-20	+17	-19	+15	-20	-19	+20	-26	+23	-24	-----
Marrriages, equalized to months of uniform length.....	14,831	1,146	1,101	1,064	1,159	1,020	1,033	1,112	1,037	1,393	1,433	1,612	1,521	3
Marrriages as returned	14,947	1,162	1,069	1,165	1,117	1,162	1,069	1,247	1,042	1,341	1,537	1,496	1,418	2
Days and hundredths by which the months should be increased or diminished to equalize them to uniform length.	-----	-56	+2.44	-56	+44	-56	+44	-56	-56	+44	-56	+44	-56	-----
Number by which the marriages should be increased or diminished to equalize them to months of uniform length.	+7	-21	+92	-21	+16	-21	+16	-23	-19	+20	-28	+22	-26	-----
Marrriages, equalized to months of uniform length.....	14,854	1,141	1,151	1,134	1,133	1,141	1,105	1,224	1,093	1,361	1,629	1,518	1,392	2

TABLE III.—*Distinguishing, by Counties and by Months, the number of Marriages returned as having been solemnized in Michigan during the Year ending December 31, 1881.*

STATE AND COUNTIES.	Year, 1881.	MONTHS, 1881.												Unk
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
STATE.....	14,847	1,162	1,069	1,155	1,117	1,162	1,069	1,247	1,042	1,341	1,557	1,496	1,418	2
Alcona.....	14	1	1	-----	1	2	2	-----	-----	-----	2	1	4	-----
Allegan.....	372	18	25	44	35	30	21	30	26	37	25	37	44	-----
Alpena.....	100	-----	1	3	5	7	11	13	10	18	9	13	10	-----
Antrim.....	36	2	2	4	3	4	1	5	2	1	3	6	3	-----
Baraga.....	16	-----	2	-----	1	-----	3	1	2	4	-----	2	1	-----
Barry.....	199	15	15	15	18	12	11	13	19	13	23	18	32	-----
Bay.....	302	17	24	14	16	26	26	38	25	25	28	22	31	-----
Benzie.....	43	-----	2	1	3	6	5	2	-----	5	8	5	6	-----
Berrien.....	562	41	33	37	45	37	37	53	38	49	66	54	72	-----
Branch.....	251	35	14	19	23	15	20	26	17	24	36	13	6	-----
Calhoun.....	329	24	26	32	23	26	20	14	14	29	36	41	41	1
Cass.....	251	15	17	18	16	22	15	21	20	23	29	21	34	-----
Charlevoix.....	54	3	2	4	4	5	1	-----	3	4	10	6	12	-----
Cheboygan.....	73	5	9	3	1	6	8	5	8	8	4	10	4	-----
Chippewa.....	52	1	5	2	3	5	5	9	2	10	1	6	3	-----
Clare.....	42	1	5	3	4	-----	3	4	3	2	3	6	8	-----
Clinton.....	236	13	18	12	18	23	12	23	12	21	39	22	23	-----
Crawford.....	11	2	-----	1	1	-----	-----	2	1	2	2	-----	-----	-----
Delta.....	72	10	4	2	7	4	5	9	5	10	5	8	3	-----
Eaton.....	240	20	19	20	16	8	18	18	16	30	25	23	27	-----
Emmet.....	64	3	1	7	3	5	8	8	4	5	7	9	4	-----
Genesee.....	329	23	28	30	20	22	21	28	17	32	30	39	39	-----
Gladwin.....	4	1	-----	1	-----	-----	-----	2	-----	-----	-----	-----	-----	-----
Gr. Traverse.....	59	5	3	4	8	11	5	8	2	6	4	2	1	-----
Graiot.....	197	15	6	10	14	18	21	20	17	19	22	14	21	-----
Hillsdale.....	346	33	18	38	19	21	22	19	25	31	51	28	35	1
Houghton.....	196	14	17	8	9	17	17	16	24	15	21	27	11	-----
Huron.....	134	17	8	9	8	11	11	11	9	9	9	21	11	-----
Ingham.....	294	27	25	28	29	16	12	21	24	26	32	33	30	-----
Ionia.....	298	20	20	23	30	19	21	30	27	28	34	25	21	-----
Iosco.....	110	12	5	4	10	9	8	13	13	2	11	10	13	-----
Isabella.....	99	7	4	6	9	6	6	10	8	10	12	13	8	-----
Isele Royal.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Jackson.....	421	34	31	28	37	18	32	25	22	43	51	45	55	-----
Kalamazoo.....	276	28	22	25	20	23	19	27	25	25	33	20	9	-----
Kalkaska.....	31	4	2	1	6	3	2	3	-----	5	3	1	1	-----
Kent.....	646	53	50	43	58	57	60	50	35	68	83	69	30	-----
Keweenaw.....	31	1	2	1	1	5	4	2	2	3	3	5	2	-----
Lake.....	21	3	1	-----	4	1	2	1	2	-----	2	2	3	-----
Lapeer.....	249	27	22	25	21	19	15	25	22	18	22	23	10	-----
Leelanaw.....	46	2	1	7	2	6	2	2	2	6	4	5	7	-----
Lenawee.....	509	49	44	52	37	28	35	32	37	53	35	51	56	-----
Livingston.....	166	15	14	24	10	10	8	10	6	19	10	17	23	-----
Mackinac.....	38	2	1	2	3	2	6	3	1	3	1	5	4	-----

## MARRIAGES BY COUNTIES, BY MONTHS.

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TABLE III.—CONTINUED.—*Marriages by Counties, by Months.*

COUNTIES.	Year, 1881.	MONTHS, 1881.												Unk
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
Macomb.....	241	16	20	23	17	30	13	13	8	22	22	28	19	....
Manistee.....	113	3	6	7	13	8	12	7	5	18	11	22	1	....
Manitou.....	6	-----	-----	-----	-----	1	3	-----	-----	-----	-----	2	-----	....
Marquette....	205	14	11	14	19	23	13	31	16	15	19	19	11	....
Mason.....	101	5	8	8	8	8	11	7	6	6	10	10	14	....
Mecosta.....	143	16	10	9	13	9	10	17	17	6	15	4	17	....
Menominee....	158	5	7	7	9	13	12	18	18	9	24	23	19	....
Midland.....	59	1	4	7	4	6	4	1	8	3	5	4	12	....
Missaukee....	8	-----	-----	1	-----	-----	1	-----	1	2	2	-----	1	....
Monroe.....	345	26	37	21	35	33	19	27	20	29	28	37	34	....
Montcalm....	236	17	20	15	20	20	14	22	12	18	24	27	27	....
Montmorency	1	-----	-----	-----	-----	-----	1	-----	-----	-----	-----	-----	-----	....
Muskegon....	324	15	22	21	30	27	28	34	37	21	24	25	40	....
Newaygo....	113	6	8	8	4	11	10	13	11	12	6	13	10	....
Oakland.....	307	26	19	46	13	25	15	17	22	22	28	35	39	....
Oceana.....	97	6	11	4	8	7	5	9	4	14	8	4	17	....
Ogemaw.....	14	-----	4	-----	1	1	-----	-----	2	-----	3	2	1	....
Ontonagon....	15	-----	-----	2	-----	2	3	1	1	1	3	1	1	....
Oscoda.....	125	9	7	9	8	9	8	18	8	12	16	11	10	....
Oscoda.....	3	-----	-----	-----	1	-----	-----	2	-----	-----	-----	-----	-----	....
Otsego.....	20	-----	1	-----	-----	3	1	3	-----	1	4	2	5	....
Ottawa.....	317	33	13	31	30	29	27	25	22	23	31	23	30	....
Presque I'l..	33	4	5	-----	-----	1	2	2	1	4	3	9	2	....
Roscommon....	13	-----	2	1	-----	-----	1	-----	3	3	1	-----	2	....
Saginaw.....	570	44	28	40	45	54	51	70	31	55	59	55	83	....
Sanilac.....	125	8	7	17	13	6	7	6	13	14	10	14	10	....
Schoolcraft..	6	-----	2	-----	-----	1	-----	-----	-----	1	1	1	-----	....
Shiawassee..	206	21	15	21	12	16	12	14	13	14	21	23	24	....
St. Clair....	369	25	25	19	25	28	36	26	31	44	45	29	36	....
St. Joseph....	364	24	22	40	30	23	27	23	24	33	57	29	47	....
Tuscola.....	199	21	12	12	18	18	12	15	5	27	21	21	17	....
Van Buren....	249	25	19	25	14	21	16	21	19	21	23	18	22	....
Washtenaw..	322	23	31	38	24	17	26	25	14	23	30	41	30	....
Wayne.....	1,555	187	118	91	104	135	135	121	121	120	173	174	126	....
Wexford.....	57	9	4	8	7	2	3	2	2	8	11	7	4	....



## COLOR OF PERSONS MARRIED.

Tables IV. and V. contain some important data in regard to the number of marriages among the different races in Michigan. It will be seen that over 98 per cent. of all persons returned as having been married in Michigan in 1881 were white persons. The greatest marriage-rate is also among the Whites and the smallest among the Indians.

Table V. shows the facts concerning the color of persons married in 1881 in each of the counties of the State.

TABLE IV.—*Exhibiting, by Color and by Sex, the Number of Marriages, and the Number and Per Cent. of Total Number of Persons Married in Michigan during the Year 1881, according to the Returns; and the Per Cent. of Persons Married in 1881 to Population in 1880.*

COLOR,—1881.	Sex.	Popula- tion June 1, 1880, Rep- resented by Mar- riages in 1881.	Number of Marriages, 1881.	PERSONS MARRIED, 1881.		Per Cent. of Persons Married in 1881 to Popula- tion June 1, 1880, by Sex and Color.	Number of Per- sons who Married those of another Color.
				Number.	Per Cent. of Total.		
All Colors.....	Total.....	1,636,882	14,847	29,694	100.00	1.81	48
	Males.....	a 862,324	.....	14,847	50.00	1.72	24
	Females.....	774,558	.....	14,847	50.00	1.92	24
White.....	Total.....	1,614,505	14,649	29,302	98.68	1.81	17
	Males.....	850,765	.....	14,656	98.71	1.72	11
	Females.....	763,740	.....	14,646	98.65	1.92	6
Black.....	Total.....	.....	91	178	.59	.....	6
	Males.....	.....	.....	91	.61	.....	7
	Females.....	.....	.....	85	.57	.....	1
Mulatto.....	Total.....	.....	42	88	.39	.....	8
	Males.....	.....	.....	42	.28	.....	2
	Females.....	.....	.....	46	.31	.....	6
Indian.....	Total.....	7,249	35	77	.26	1.06	15
	Males.....	3,696	.....	35	.24	.95	4
	Females.....	3,553	.....	42	.28	1.18	11
One or Both Unknown.	Total.....	.....	30	51	.17	.....	.....
	Males.....	.....	.....	23	.16	.....	.....
	Females.....	.....	.....	28	.19	.....	.....
Black and Mulatto....	Total.....	15,100	133	264	.89	1.75	16
	Males.....	7,635	.....	133	.90	1.69	9
	Females.....	7,465	.....	131	.88	1.80	7

a Includes 28 Asiatics.

TABLE V.—*Exhibiting for the State and Counties, the Number of Marriages Returned as having been Solemnized in Michigan during the Year 1881, the Number of Couples of White Persons, and by Color the Number of Marriages where one or both parties were other than White.*

STATE AND COUNTIES.	Marriages, 1881.	COLOR OF PERSONS MARRIED, 1881, STATED BY COUPLES.						
		White.	Black.	Mulatto.	Indian.	FEMALE UNK.	MALE UNK.	Both Unknown.
						Male White.	Female White.	
State.....	14,847	a 14,649	b 91	c 42	d 35	7	2	21
Alcona.....	14	14						
Allegan.....	372	369	e 3					
Alpena.....	100	100						
Antrim.....	36	35			1			
Baraga.....	16	f 13			3 <sup>g</sup>			
Barry.....	199	198				1		
Bay.....	302	298	1		3			
Benzie.....	43	42		1				
Berrien.....	562	553	g 4	3				2
Branch.....	251	250						1
Calhoun.....	329	324	a 2	1			1	1
Cass.....	251	236	13	11	j 1			
Charlevoix.....	54	54						
Cheboygan.....	73	k 72			1 1			
Chippewa.....	52	k 52						
Clare.....	42	42						
Clinton.....	236	236						
Crawford.....	11	11						
Delta.....	72	71			1			
Eaton.....	240	240						
Emmet.....	64	m 55			n 6			1
Genesee.....	329	327	2					
Gladwin.....	4	4						
Grand Traverse.....	59	59						

a Includes 1 female  $\frac{1}{2}$  Indian, 6 females White and Indian, 4 females Indian, and 1 male Spanish.

b Includes 7 couples "African," 12 couples "Colored," 5 females Mulatto, 1 female "Octo-rop," and 1 female White.

c Includes 1 couple, male "Light," female "Brunette," 1 female Black, 1 female White, 1 couple, male  $\frac{1}{2}$  White, female  $\frac{1}{2}$  Black, and 1 couple, male  $\frac{1}{2}$  Black, female  $\frac{1}{2}$  White.

d Includes 1 couple "Indian and African," 3 couples White and Indian, 3 couples, male White and Indian, female White, 1 couple, male White and Indian, female Indian, and 1 couple, male Indian, female White.

e 1 couple "African."

f 1 female  $\frac{1}{2}$  Indian, 2 females White and Indian, and 1 female Indian.

g 1 couple "Colored."

h 1 couple "African," and 1 couple "Colored."

i 1 female Mulatto.

j 1 couple "Indian and African."

k 1 female White and Indian.

l 1 couple White and Indian.

m 1 female Indian.

n 1 couple, male White and Indian, female White, and 1 couple, male White and Indian, female Indian.

TABLE V.—CONTINUED.—*Marriages in 1881, by Counties, by Color.*

COUNTIES.	Marriages, 1881.	COLOR OF PERSONS MARRIED, 1881, STATED BY COUPLES.						
		White.	Black.	Mulatto.	Indian.	FEMALE UNK.	MALE UNK.	Both Unknown.
						Male White.	Female White.	
Gratiot.....	197	196	1					
Hillsdale.....	346	345	1					
Houghton.....	196	195						1
Huron.....	184	184						
Ingham.....	294	293	1					
Ionia.....	298	295				2		1
Iosco.....	110	108			1		1	
Isabella.....	99	98			1			
Isle Royal.....								
Jackson.....	421	412	b 7	c 1				1
Kalamazoo.....	276	260	b 3	2				11
Kalkaska.....	31	31						
Kent.....	646	d 639	e 3	3		1		
Keweenaw.....	31	31						
Lake.....	21	21						
Lapeer.....	249	f 249						
Leelanaw.....	46	41			g 5			
Lenawee.....	509	507	e 1	h 1				
Livingston.....	166	164	2					
Mackinac.....	38	i 34			j 4			
Macomb.....	241	240	1					
Manistee.....	113	113						
Manitou.....	6	6						
Marquette.....	205	205						
Mason.....	101	100	1					
Mecosta.....	143	141	1	1				
Menominee.....	168	159						
Midland.....	59	59						
Missaukee.....	8	8						
Monroe.....	345	343	2					
Montcalm.....	236	234	1					1
Montmorency.....	1	1						

a No returns of marriages from county clerk.

b 1 couple "African."

c 1 couple, male "Light," female "Brunette."

d 1 male "Spanish."

e 1 female Mulatto.

f 1 female White and Indian.

g 1 couple, male White and Indian, female

White.

h 1 female Black.

i 1 female Indian, and 1 female White and Indian.

j 3 couples White and Indian, 1 couple, male White and Indian, female White, and 1 couple, male Indian, female White.

TABLE V.—CONTINUED.—*Marriages in 1881, by Counties, by Color.*

COUNTIES.	Marriages, 1881.	COLOR OF PERSONS MARRIED, 1881, STATED BY COUPLES.						
		White.	Black.	Mulatto.	Indian.	FEMALE UNK.	MALE UNK.	Both Unknown.
						Male White.	Female White.	
Muskegon.....	324	324						
Newaygo.....	112	111			1			
Oakland.....	307	306	1	1				
Oceana.....	97	93	2		2			
Ogemaw.....	14	14						
Ontonagon.....	15	15						
Osceola.....	125	125						
Oscoda.....	8	8						
Otsego.....	20	20						
Ottawa.....	317	317						
Presque Isle.....	88	88						
Roscommon.....	13	12		a 1				
Saginaw.....	570	567		2	1			
Sanilac.....	125	125						
Schoolcraft.....	6	b 6						
Shiawassee.....	206	206						
St. Clair.....	369	368			1			
St. Joseph.....	364	361	c 2	1				
Tuscola.....	199	199						
Van Buren.....	249	237	d 4	5	3			
Washtenaw.....	323	316	e 4	e 2				
Wayne.....	1,555	1,509	f 38	6				2
Wexford.....	67	64				3		

a 1 female White.

b 1 female Indian.

c 1 female Mulatto.

d 1 female "Octoroon," and 1 female Mulatto.

e 1 couple, male  $\frac{1}{2}$  White, female  $\frac{1}{2}$  Black, and 1 couple, male  $\frac{1}{2}$  Black, female  $\frac{1}{2}$  White.

f 8 couples "African," and 10 couples "Colored."

11—1881.

## NATIVITY OF PERSONS MARRIED.

Some important items of interest concerning the nativity of the persons married in this State in 1881 will be found in Exhibit 1 and Table VI.

Exhibit 1 shows that 68.12 per cent. of the males, and 72.30 per cent. of the females married in 1881 were native-born; also that 30.96 per cent. of the males and 26.20 per cent. of the females were foreign-born. This is a smaller proportion of the native-born for both males and females, and a larger proportion of foreign-born for both males and females than in 1880.

EXHIBIT 1.—*By Nativity, the Number and Per Cent. of Brides and of Bridegrooms Returned as having been married in Michigan during the Year ending December 31, 1881, and by number, the manner of their Union by Nativity.*

BRIDEGROOMS AND BRIDES, NATIVITY SPECIFIED.		BRIDES, 1881.			BRIDEGROOMS, 1881.	
		Native.	Foreign.	Un- known.	Total of each Na- tivity, and of all Na- tivi- ties.	Per Cent. of each Na- tivity.
Bridegrooms ..	{ Native.....	8,804	1,214	96	10,114	68.12
	{ Foreign.....	1,894	2,672	31	4,597	30.96
	{ Unknown.....	37	4	95	136	.92
Brides.....	{ Whole No. of each nativity and total..	10,735	3,890	222	14,847	-----
	{ Per cent. of each nativity and total..	72.30	26.20	1.50	-----	100.00

Table VI. shows the marriage-rate among the native and foreign-born inhabitants of Michigan for the year 1881. It will be seen that the marriage-rate is much greater among the foreign-born than among the native. It should be remembered, however, that this showing is based upon the number of marriages in 1881 and the number of inhabitants in 1880; and also that the statement includes persons at all ages, when it is a well-known fact that there are more children under the marriageable age among the native-born than among the foreign-born.

The number of marriages in which both parties were born in the United States was 8,804, or 59.30 per cent. of all; this is a smaller proportion of this class than in 1880. The number of marriages in which both parties were foreign-born was 2,672, or 18 per cent. of all; this is a larger proportion than in 1880.



TABLE VI.—*Exhibiting, by Sex, the Nativity of Persons returned as having been Married in Michigan during the Year 1881.*

NATIVITY.	MARRIAGES, 1881.		POPULATION JUNE 1, 1880, REPRESENTED BY MAR- RIAGES IN 1881.			PERSONS MARRIED, 1881.					
	Number.	Per Cent. of Total.	Total.	Males.	Females.	Number.			Per Cent. of Persons Married in 1881 to Population of same nativity June 1, '80.		
						Total.	Males.	Females.	Total.	Males.	Females.
Total.....	14,847	100.00	1,336,882	862,324	774,558	29,694	14,847	14,847	1.81	1.72	1.92
Native.....	8,804	59.30	1,248,395	642,913	605,482	20,849	10,114	10,735	1.67	1.57	1.77
Foreign.....	2,672	18.00	388,487	219,411	169,076	8,487	4,597	3,890	2.18	2.10	2.30
Foreign Male and Na- tive Female.....	1,894	12.75	-----	-----	-----	-----	-----	-----	-----	-----	-----
Foreign Female and Native Male.....	1,214	8.18	-----	-----	-----	-----	-----	-----	-----	-----	-----
Unknown.....	* 263	1.77	-----	-----	-----	358	136	222	-----	-----	-----
One or Both Native..	11,912	80.23	-----	-----	-----	-----	-----	-----	-----	-----	-----
One or Both Foreign..	5,780	38.93	-----	-----	-----	-----	-----	-----	-----	-----	-----

\* Includes cases where one or both are unknown.

## AGES OF PERSONS MARRIED.

Exhibit C shows, by nativity, the average age of males and females married in Michigan in each of the years 1878, 1879, 1880, and 1881. It is seen that the average age of the native-born is a little less than the average age for all nativities, while the average age of the foreign-born is a little more than the average age for all nativities. The average age of the males is about five years greater than the average age of the females.

EXHIBIT C.—*By Nativity, the Average Age of Persons Married in Michigan in 1878–1881, inclusive, according to the Returns.*

NATIVITY OF PERSONS MARRIED.	1878.		1879.		1880.		1881.	
	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.	Males.	Fe- males.
All nativities.....	28.01	22.91	28.01	23.00	28.08	23.20	28.09	23.20
Native.....	27.46	22.54	27.48	22.65	27.59	22.82	27.49	22.83
Foreign.....	29.51	24.28	29.42	24.28	29.29	24.42	29.33	24.20
Unknown.....	28.82	23.62	28.00	24.33	28.31	23.37	31.43	23.83

Table VII. shows the number and proportion of males and females married in Michigan in 1881 at each period of age. The largest proportion of both males and females in 1881 was for those at the ages of 21 to 25 years. It also shows that 66.52 per cent. of the males who were married in Michigan in 1881 were between the ages of 21 and 30 years; and 42.75 per cent. of the females were married between those ages. The proportion of the sexes is nearer equal at this period of life than at any other period.

TABLE VII.—*By Sex, and Periods of Age, the Number and Per Cent. of Total Number of Persons Married at each Age and Period of Age, during the Year 1881; and the Per Cent. of each Sex at each Age and Period of Age to the Total Number of both Sexes.*

AGES IN YEARS AND PERIODS.	MARRIAGES, 1881.						
	Total Number of Persons Married.	MALES.			FEMALES.		
		Number Married.	Per Cent. of Total Marri- ages.	Per Cent. of Persons Married at Correspond- ing Ages.	Number Married.	Per Cent. of Total Marri- ages.	Per Cent. of Persons Married at Correspond- ing Ages.
All ages.....	22,694	14,847	100.00	50.00	14,847	100.00	50.00
13.....	1				1	.01	100.00
14.....	29				29	.20	100.00
15.....	121				121	.81	100.00
16.....	751				751	5.06	100.00
17.....	1,022	12	.08	1.17	1,010	6.80	98.83
18.....	1,620	86	.58	5.31	1,534	10.33	94.69
19.....	1,748	244	1.64	13.96	1,504	10.13	86.04
20.....	2,173	594	4.00	27.34	1,579	10.64	72.06
21 to 25.....	9,874	5,416	36.48	54.85	4,458	30.03	45.15
25 to 30.....	6,349	4,460	30.04	70.25	1,889	12.72	29.75
30 to 35.....	2,458	1,757	11.83	71.48	701	4.72	28.52
35 to 40.....	1,230	796	5.36	64.72	434	2.92	35.28
40 to 45.....	739	467	3.15	63.19	272	1.83	36.81
45 to 50.....	510	306	2.06	60.00	204	1.37	40.00
50 to 55.....	334	232	1.56	69.46	102	.69	30.54
55 to 60.....	207	139	.94	67.15	68	.46	32.85
60 to 65.....	174	118	.79	67.82	56	.38	32.18
65 to 70.....	98	80	.54	81.63	18	.12	18.37
70 to 75.....	46	41	.28	89.13	5	.03	10.87
75 to 80.....	20	19	.13	95.00	1	.01	5.00
80 and over.....	3	3	.02	100.00			
Unknown.....	187	77	.52	41.18	110	.74	58.82
Under 15.....	30				30	.20	100.00
15 to 20.....	5,262	342	2.30	6.50	4,920	33.14	93.34



EXHIBIT 2.—*Number of Persons Returned as having been Married in Michigan in 1881, by Sex, and Excess of the Sexes, by Age in Years.*

Ages in Years.	PERSONS MARRIED IN 1881.			EXCESS.		Ages in Years.	PERSONS MARRIED IN 1881.			EXCESS.	
	Total.	Males.	Fe-male	Males.	Fe-male		Total.	Males.	Fe-males.	Males.	Fe-males.
All ages	29,694	14,847	14,847			47	84	46	38	8	
						48	90	51	39	12	
13	1		1		1	49	91	53	38	15	
14	29		29		29	50	102	71	31	40	
15	121		121		121	51	65	44	21	23	
16	751		751		751	52	54	34	20	14	
17	1,022	12	1,010		998	53	65	49	16	33	
18	1,620	86	1,534		1,448	54	48	34	14	20	
19	1,748	244	1,504		1,260	55	52	37	15	22	
20	2,173	594	1,579		985	56	48	29	19	10	
21	2,597	1,240	1,357		117	57	42	30	12	18	
22	2,615	1,345	1,270	75		58	38	22	16	6	
23	2,546	1,500	1,046	454		59	27	21	6	15	
24	2,116	1,331	785	546		60	59	44	15	29	
25	1,722	1,165	557	608		61	27	16	11	5	
26	1,536	1,061	475	586		62	40	25	15	10	
27	1,222	864	358	506		63	24	17	7	10	
28	1,104	815	289	526		64	24	16	8	8	
29	765	555	210	345		65	22	20	2	18	
30	787	567	220	347		66	27	19	8	11	
31	477	353	124	229		67	15	14	1	13	
32	478	350	128	222		68	17	14	3	11	
33	376	256	120	136		69	17	13	4	9	
34	340	231	109	122		70	16	14	2	12	
35	311	207	104	103		71	3	2	1	1	
36	270	175	95	80		72	9	7	2	5	
37	216	139	77	62		73	9	9		9	
38	253	167	86	81		74	9	9		9	
39	180	108	72	36		75	11	11		11	
40	223	147	76	71		76	5	4	1	3	
41	137	94	43	51		77	4	4		4	
42	158	97	61	36		80	1	1		1	
43	113	63	50	13		81	1	1		1	
44	10	66	42	24		84	1	1		1	
45	142	83	59	24		Unk..	187	77	110		33
46	103	73	30	43							

VITAL STATISTICS OF MICHIGAN, 1881.

*Exhibiting for the State and Counties, by Sex, the Nativity and Age in Periods of Years, of Persons returned as having been Married in Michigan during the year ending December 31, 1881.*

STATE AND COUNTIES.	Number of Couple Married, 1881.	NATIVITY OF PERSONS MARRIED, 1881, STATED BY COUPLES.						SEX STATED.	MARRIAGES AT DIFFERENT AGES, STATED IN PERIODS OF YEARS, 1881.																
		Both Native.	Both Foreign.	FEMALES UNKNOWN.		MALES UNKNOWN.			Both Unknown.	Un- der 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and over.	Unknown.	
				For- eign Na- tive males.	For- eign Na- tive females.	For- eign Na- tive males.	For- eign Na- tive females.																		
STATE. ....	14,847	8,801	2,672	1,894	1,214	a 96	b 31	37	4	c 35	5,292	12,047	6,349	2,458	1,230	739	510	334	207	174	98	46	20	3	187
											342	6,010	4,460	1,757	706	467	306	232	139	118	50	41	19	3	77
											4,960	6,037	1,859	701	434	272	204	102	68	56	18	5	1		110
Alcona.....	14	1	10	.....	3	.....	.....	.....	.....	.....	8	2	1	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Allegan.....	372	275	31	47	15	1	.....	2	.....	1	4	159	92	54	22	9	8	4	2	7	7	1	2	1	.....
Alpena.....	100	15	55	18	11	.....	1	.....	.....	.....	128	139	51	19	10	4	4	2	5	.....	.....	.....	.....	.....	6
Antrim.....	36	13	15	7	1	.....	.....	.....	.....	.....	40	34	13	7	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	7
Baraga.....	16	9	3	4	.....	.....	.....	.....	.....	.....	2	12	15	1	1	3	1	.....	.....	.....	.....	.....	.....	.....	1
Barry.....	199	170	4	19	5	1	.....	.....	.....	.....	16	10	6	3	2	1	.....	.....	.....	.....	.....	.....	.....	.....	1
Bay.....	392	90	102	53	57	.....	.....	.....	.....	.....	.....	3	6	3	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
Benzie.....	43	24	11	4	3	.....	.....	.....	.....	.....	.....	2	10	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Berrien.....	562	447	33	37	19	14	3	.....	.....	.....	18	251	76	26	15	8	12	4	1	.....	.....	.....	.....	.....	1
Branch.....	251	214	7	16	9	2	.....	.....	.....	.....	9	117	67	18	10	8	5	2	2	5	3	4	.....	.....	1
Calhoun.....	329	276	8	28	12	4	.....	.....	.....	.....	2	132	100	33	22	7	9	6	2	5	5	2	.....	.....	4



## MARRIAGES—BY COUNTIES, NATIVITY, SEX, AND AGE.

251	226	5	10	10	---	---	Males.... Females....	7 79	119 104	52 32	28 14	9 5	5 4	7 1	2 1	---	---	---	---
54	27	12	8	7	---	---	Males.... Females....	1 24	18 18	15 8	10 2	5 8	4 ---	1 1	1 ---	---	---	---	---
73	23	24	17	9	---	---	Males.... Females....	2 35	32 29	28 6	5 ---	3 1	3 ---	1 1	---	---	---	---	---
52	7	31	1	12	---	1	Males.... Females....	---	16 27	24 18	4 4	1 1	---	1 ---	---	---	---	---	---
42	20	4	7	7	1	---	Males.... Females....	4 20	15 16	15 5	5 ---	1 ---	2 ---	---	---	---	---	---	---
236	194	6	23	10	2	1	Males.... Females....	12 102	114 93	67 17	14 7	9 6	3 2	3 5	3 1	3 ---	3 1	1 ---	---
11	5	---	4	2	---	---	Males.... Females....	---	6 5	5 1	---	---	---	---	---	---	---	---	---
72	19	34	10	9	---	---	Males.... Females....	28 23	24 31	9 8	5 6	2 2	1 1	2 ---	---	---	---	---	---
240	211	3	10	10	3	1	Males.... Females....	14 81	109 105	58 20	17 7	12 10	9 7	8 3	4 1	3 1	2 5	1 ---	---
64	30	8	16	9	---	---	Males.... Females....	1 24	25 22	14 6	12 3	2 4	3 1	2 1	2 ---	1 ---	---	---	---
329	227	26	44	30	---	1	Males.... Females....	12 120	152 117	85 41	27 18	13 15	9 3	4 5	1 1	3 ---	2 3	2 ---	---
4	2	1	1	---	---	---	Males.... Females....	---	2 1	1 ---	1 ---	---	---	---	---	---	---	---	---
59	35	11	6	5	1	---	Males.... Females....	1 24	27 16	13 11	9 3	4 2	1 ---	1 ---	1 ---	1 ---	1 ---	---	---
197	188	5	20	13	---	---	Males.... Females....	7 100	84 62	61 17	22 5	6 4	1 1	3 3	2 ---	1 ---	---	---	---
345	329	2	10	3	1	---	Males.... Females....	12 125	162 183	91 40	31 16	8 10	5 3	3 6	5 5	2 1	1 ---	---	---
196	19	142	30	5	---	---	Males.... Females....	4 59	69 87	70 29	31 13	9 6	7 1	2 ---	3 ---	---	---	---	---
134	28	50	30	19	---	1	Males.... Females....	---	52 52	50 16	21 6	3 1	1 2	---	5 1	---	---	---	---
* 1 female "America."      * 3 couples and 1 male "America."      * 6 females "America."      * 1 couple "America."																			





## MARRIAGES—BY COUNTIES, NATIVITY, SEX, AND AGE.

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Lenauee....	509	427	23	23	18	8	2	3	Males.....	12	198	156	60	29	12	15	8	4	7	3	4	1	4
									Females...	140	216	70	34	20	13	6	2	2	1	1			
Livingston...	166	131	2	19	11	1	2		Males.....	4	74	40	23	13	4	4	2	2					
									Females...	63	62	24	9	3	2	1	1	1					
Mackinac....	38	13	9	13	3				Males.....	2	12	14	8		1	1							
									Females...	19	11	3	2	1	2								
Macomb.....	241	139	37	50	24		1		Males.....	2	102	75	22	14	10	5	3	3	1	2	1	1	
									Females...	60	115	32	14	11	4		3	1	1				
Manistee....	113	37	43	17	10		1		Males.....	3	31	42	16	7	2	4	1						
									Females...	33	53	13	6	1	2	4			1				
Manitou.....	6	2	1	3					Males.....		5	1											
									Females...	2	2	2											
Marquette...	203	16	153	19	14		a 1		Males.....	2	77	70	31	11	4	1		1		1			7
								b 2	Females...	71	79	24	17	5	1			1					7
Mason.....	101	53	27	14	4	1		2	Males.....		42	27	17	9	3	1	1			1			
									Females...	30	48	14	1	3	1	2	1	1					
Mecosta.....	143	74	27	27	14				Males.....	2	53	52	24	4	6	2							
									Females...	51	52	21	12	4		3							
Menominee...	153	34	83	19	17		4	1	Males.....		53	62	22	7	5	4		1					4
									Females...	46	69	15	9	8	2	2			1				6
Midland.....	59	32	5	13	7			1	Males.....	2	26	13	5	3	4	2	2	1					1
									Females...	20	24	6	3	2		1	2						1
Missaukee...	8	5	3						Males.....	1	2	4											
									Females...	5	2												
Monroe.....	245	266	14	42	13	1	1	3	Males.....	8	141	104	49	15	9	6	4	2	2	1	1	2	1
									Females...	112	145	46	18	11	5	2		1	3			2	
Montcalm...	233	146	34	26	27	2			Males.....	6	104	63	31	19	1	3	5		2	1		1	
									Females...	93	86	22	11	7	6		3	1	1			1	
Montmorency	1	1							Males.....														
									Females...		1												
Muskegon...	324	123	117	44	38	2			Males.....	4	143	98	38	16	10	5	4	2	1	2			1
									Females...	114	119	52	18	9	3	3	1		2			2	
Newaygo....	112	87	3	16	6				Males.....	3	39	41	10	6	6	2	2		3				
									Females...	55	30	9	4	3	2	6	1						

b 1 couple "America."

a 1 female "America."





## MARRIAGES—BY COUNTIES, NATIVITY, SEX, AND AGE.

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[illegible]

"I couple and I male "America."

• 3 females "America."



In Table IX. can be seen the number of males and females who were married in Michigan under the age of 21 years. In 1881 there were 7,465 such persons, of whom 936 were males, and 6,529 were females. This is a larger number than appears for any preceding year, and is more by 80 than was returned for 1880. There has been, with a few exceptions, a gradual increase from year to year in the number of persons married in Michigan under 21 years of age; 6.30 per cent. of the males, and 43.98 per cent. of the females being thus married in 1881.

This table also shows the number of males and females who were returned as having been married under the legal age. There were 12 males, and 151 females who were thus illegally joined in matrimony in 1881. Attention is called to one case in Saginaw county where the bride was returned as only 13 years of age, the groom being 22 years old. This marriage was solemnized in East Saginaw, by John McEldowney, minister of the gospel. The penalty for solemnizing such marriages is a fine of five hundred dollars, and of spending a year in the county jail.

TABLE IX.—*Exhibiting, for the State and Counties, the Total Number of each Sex under 21 years of Age; and the Number of each Sex at each Age under that of 21 years, Returned as having been Married in Michigan during the year ending December 31, 1881.*

STATE AND COUNTIES.	PERSONS MARRIED UNDER 21 YEARS OF AGE, 1881.			AGES OF MALES, 1881.					AGES OF FEMALES, 1881.								
	Total.	Males.	Fe- males.	Twenty.	Nineteen.	Eighteen.	Seventeen. <sup>a</sup>	Sixteen. <sup>a</sup>	Twenty.	Nineteen.	Eighteen.	Seventeen.	Sixteen.	Fifteen. <sup>a</sup>	Fourteen. <sup>a</sup>	Thirteen. <sup>a</sup>	Twelve. <sup>a</sup>
STATE.....	7,465	936	6,529	594	244	88	12	---	1,579	1504	1534	1010	751	121	29	1	---
Alcona.....	6	---	6	---	---	---	---	---	---	---	1	3	1	1	---	---	---
Allegan.....	199	28	171	24	2	2	---	---	43	36	48	21	20	3	---	---	---
Alpena.....	49	3	46	3	---	---	---	---	6	16	13	5	4	1	1	---	---
Antrim.....	22	3	19	1	1	1	---	---	3	2	4	5	3	2	---	---	---
Baraga.....	6	---	6	---	---	---	---	---	4	1	1	---	---	---	---	---	---
Barry.....	134	20	114	11	4	4	1	---	24	24	32	17	13	2	2	---	---
Bay.....	142	11	131	5	4	2	---	---	32	28	25	26	17	3	---	---	---
Benzie.....	26	4	22	3	1	---	---	---	7	4	2	4	3	1	1	---	---
Berrien.....	298	47	251	29	17	---	1	---	71	57	54	41	25	3	---	---	---
Branch.....	142	23	119	14	7	2	---	---	24	30	31	11	21	2	---	---	---
Calhoun.....	132	12	120	10	2	---	---	---	33	31	26	17	12	1	---	---	---
Cass.....	127	24	103	17	7	---	---	---	24	21	26	21	9	2	---	---	---
Charlevoix.....	30	1	29	---	---	1	---	---	5	9	5	3	6	1	---	---	---
Cheboygan.....	47	4	43	2	1	1	---	---	8	5	12	8	8	2	---	---	---
Chippewa.....	32	---	32	---	---	---	---	---	5	8	12	4	3	---	---	---	---
Clare.....	27	5	22	1	2	1	1	---	2	1	4	5	4	5	1	---	---
Clinton.....	148	20	128	8	9	2	1	---	26	33	29	24	14	1	1	---	---

<sup>a</sup> Not legal marriages. For law and penalty to persons solemnizing, see sections (4719), (4730), (4728), and (4729), Compiled Laws of 1871, pages 1462, 1463, and 1464.



TABLE IX.—CONTINUED.—*Persons Married under 21 Years of Age.*

COUNTIES.	PERSONS MARRIED UNDER 21 YEARS OF AGE, 1881.			AGES OF MALES, 1881.						AGES OF FEMALES, 1881.							
	Total.	Males.	Fe- males.	Twenty.	Nineteen.	Eighteen.	Seventeen. <sup>a</sup>	Sixteen. <sup>a</sup>	Twenty.	Nineteen.	Eighteen.	Seventeen.	Sixteen.	Fifteen. <sup>a</sup>	Fourteen. <sup>a</sup>	Thirteen. <sup>a</sup>	Twelve. <sup>a</sup>
Crawford.....	8		8						3	1		2	1	1			
Delta.....	34	3	31	3					8	8	8	2	4		1		
Eaton.....	140	32	108	18	10	4			27	24	15	21	16	3	2		
Emmet.....	41	7	34	6		1			10	8	9	3	4				
Genesee.....	166	24	142	12	8	3	1		22	24	40	24	29	3			
Gladwin.....	2		2										2				
Grand Traverse	30	1	29		1				5	7	4	5	7	1			
Gratiot.....	134	16	118	9	6	1			18	17	27	20	31	4	1		
Hillsdale.....	181	28	153	16	7	5			28	38	48	25	14				
Houghton.....	84	12	72	8		4			13	15	16	15	8	2	3		
Huron.....	71	3	68	3					16	16	16	11	8	1			
Ingham.....	160	20	140	14	6				22	26	43	24	20	3	2		
Ionia.....	175	31	144	20	6	5			33	31	32	28	17	3			
Iosco.....	62	5	57	3	2				15	12	12	6	9	3			
Isabella.....	60	7	53	5	1	1			14	11	10	10	6	2			
Jackson.....	191	32	159	19	11	2			37	38	38	21	22	1	2		
Kalamazoo.....	107	17	90	11	3	3			26	25	17	12	9	1			
Kalkaska.....	22	1	21	1					6	3	3	3	5	1			
Kent.....	328	38	290	24	9	4	1		76	69	67	44	33		1		
Keweenaw.....	9		9							3	2	1	3				
Lake.....	15	1	14			1			2	3	3	1	4	1			
Lapeer.....	142	21	121	11	6	3	1		37	17	34	14	17	2			
Leelanaw.....	29	2	27	1	1				8	8	4	4	3				
Lenawee.....	222	29	193	17	10	2			53	43	46	31	17	2	1		
Livingston.....	88	11	77	7	4				14	22	17	16	7	1			
Mackinac.....	22	2	20		2				1	3	9	4	3				
Macomb.....	99	7	92	5	1	1			32	25	15	14	6				
Manistee.....	57	7	50	4	3				17	9	8	7	7	2			
Manitou.....	2		2									1	1				
Marquette.....	98	5	93	3	1	1			22	24	19	14	7	6	1		
Mason.....	43	3	40	3					10	7	12	3	4	4			
Mecosta.....	68	4	64	2	2				13	13	10	12	13	3			
Menominee.....	64	2	62	2					16	18	14	5	6	2	1		
Midland.....	36	6	30	4	1	1			10	4	4	6	3	2	1		

<sup>a</sup> Not legal marriages. For law and penalty to persons solemnizing, see sections (4719), (4720), (4728), and (4729), Compiled Laws of 1871, pages 1462, 1463, and 1464.

TABLE IX.—CONTINUED.—*Persons Married under 21 Years of Age.*

COUNTIES.	PERSONS MARRIED UNDER 21 YEARS OF AGE, 1881.			AGES OF MALES, 1881.					AGES OF FEMALES, 1881.								
	Total.	Males.	Fe- males.	Twenty.	Nineteen.	Eighteen.	Seventeen. <sup>a</sup>	Sixteen. <sup>a</sup>	Twenty.	Nineteen.	Eighteen.	Seventeen.	Sixteen.	Fifteen. <sup>a</sup>	Fourteen. <sup>a</sup>	Thirteen. <sup>a</sup>	Twelve. <sup>a</sup>
Missaukee.....	8	2	6	1	---	1	---	---	1	3	---	1	1	---	---	---	---
Monroe.....	163	17	151	9	6	2	---	---	39	39	35	24	13	1	---	---	---
Montcalm.....	143	22	121	16	5	1	---	---	23	26	29	19	19	5	---	---	---
Muskegon.....	169	16	153	12	1	2	1	---	39	33	35	26	11	4	---	---	---
Newaygo.....	70	8	62	5	1	2	---	---	7	17	14	12	9	2	1	---	---
Oakland.....	110	12	98	8	3	1	---	---	36	24	16	18	4	---	---	---	---
Oceana.....	65	7	58	7	---	---	---	---	12	8	18	9	10	1	---	---	---
Ogemaw.....	8	2	6	1	1	---	---	---	---	---	2	1	2	---	1	---	---
Ontonagon.....	9	2	7	1	---	1	---	---	4	---	3	---	---	---	---	---	---
Osceola.....	70	6	64	5	1	---	---	---	11	17	15	7	9	3	2	---	---
Oscoda.....	2	---	2	---	---	---	---	---	---	---	1	1	---	---	---	---	---
Otsego.....	13	---	13	---	---	---	---	---	2	2	4	2	2	1	---	---	---
Ottawa.....	172	30	142	19	10	1	---	---	25	33	39	26	17	1	1	---	---
Presque Isle.....	22	---	22	---	---	---	---	---	---	6	5	7	3	1	---	---	---
Roscommon.....	5	---	5	---	---	---	---	---	---	1	1	2	1	---	---	---	---
Saginaw.....	274	28	246	17	9	2	---	---	54	65	60	39	19	7	1	1	---
Sanilac.....	76	6	70	5	---	1	---	---	13	20	17	11	9	---	---	---	---
Schoolcraft.....	4	---	4	---	---	---	---	---	2	---	---	2	---	---	---	---	---
Shiawassee.....	111	12	99	6	5	1	---	---	28	15	23	18	15	---	---	---	---
St. Clair.....	184	17	167	13	4	---	---	---	41	48	38	24	16	---	---	---	---
St. Joseph.....	179	27	152	14	7	4	2	---	37	35	39	28	11	2	---	---	---
Tuscola.....	146	24	122	16	6	1	1	---	23	24	30	22	21	1	1	---	---
Van Buren.....	145	22	123	14	7	1	---	---	27	29	21	25	17	4	---	---	---
Washtenaw.....	106	10	96	8	2	---	---	---	34	24	22	8	6	2	---	---	---
Wayne.....	620	78	542	54	17	7	---	---	186	149	129	51	27	---	---	---	---
Wexford.....	29	6	23	4	1	---	1	---	4	3	11	3	---	2	---	---	---

<sup>a</sup> Not legal marriages. For law and penalty to persons solemnizing, see sections (4719), (4720), (4728), and (4729), Compiled Laws of 1871, pages 1462, 1463, and 1464.

## MANNER OF UNION BY AGES.

Table X. shows the number of males at each period of age who married females at each of the periods of age. The ages of the males are placed in the first column, and the ages of the females across the top of the table. The table may be read as follows: The column next to the last shows that 342 males, who were married under 20 years of age, married 261 females aged under 20 years, 72 aged 20 to 25 years, 5 aged 25 to 30 years, 1 aged 30 to 35 years, and 3 whose ages were not returned; in like manner the other numbers in this column may be read. The 4,950 females, married under 20 years of



age, as seen in the line headed "Total Females," married males as follows: 261 married males under 20 years of age, 2,855 married males 20 to 25 years of age, 1,404 married males 25 to 30 years of age, etc. The last column and the bottom line of the table show the proportion of males and females married at each period of age. The largest proportion for both males and females appears for those aged 20 to 25 years.

TABLE X.—*Exhibiting the Number of each Sex at each Period of Age who were married in Michigan during the Year 1881; the Number of each Sex at each Period of Age who were united to the opposite Sex at each Period of Age; and the Per Cent. of Brides and of Bridegrooms at each Period of Age to Total at All Ages.*

AGES OF MALES, 1881.	AGES OF FEMALES, 1881.															Total Males.	Per Cent. of Grooms at each Age.
	Un- der 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and over.	Unk'n.		
Under 20....	261	72	5	1	---	---	---	---	---	---	---	---	---	---	3	342	2.30
20 to 25.....	2,855	2,754	322	44	17	4	---	---	---	---	---	---	---	---	14	6,010	46.47
25 to 30.....	1,404	2,119	759	121	29	10	5	---	---	---	---	---	---	---	13	4,460	30.04
30 to 35.....	314	723	434	189	65	26	3	2	---	---	---	---	---	---	1	1,757	11.83
35 to 40.....	70	216	206	140	105	37	15	2	2	1	1	---	---	---	1	796	5.33
40 to 45.....	22	82	89	99	85	54	27	4	2	1	---	---	---	---	2	467	3.14
45 to 50.....	15	36	44	51	54	53	43	3	4	2	---	1	---	---	---	396	2.06
50 to 55.....	4	17	17	33	45	33	38	33	6	3	---	---	---	---	3	232	1.63
55 to 60.....	1	6	6	15	22	25	23	21	15	5	---	---	---	---	---	139	.93
60 to 65.....	2	3	5	5	7	19	26	9	20	17	1	2	1	---	1	118	.79
65 to 70.....	---	5	1	2	3	6	13	20	10	15	5	---	---	---	---	80	.53
70 to 75.....	---	1	1	---	2	3	8	6	5	7	7	1	---	---	---	41	.27
75 to 80.....	---	---	---	1	---	1	3	1	4	5	3	1	---	---	---	19	.12
80 and over..	---	---	---	---	---	1	---	1	---	---	1	---	---	---	---	3	.02
Unknown....	2	3	---	---	---	---	---	---	---	---	---	---	---	---	72	77	.51
Total Females. }	4,950	6,037	1,889	701	434	272	204	102	68	56	18	5	1	---	110	14,847	---
Per Ct. of Brides at each age. }	33.34	40.66	12.72	4.72	2.92	1.83	1.38	.69	.46	.38	.12	.03	.01	---	.74	---	100.00

In Table XI. can be seen some of the great differences in the ages of persons returned as having been married in Michigan during the year 1881. Some of the most remarkable marriages of the year were as follows: In Cass county, a man of 70 was married to a woman of 22, and in Genesee county a man of 35 was married to a woman of 66. Some of the females who were married during the year were decidedly old, and some of the males, also, were married at quite advanced ages.

TABLE XI.—Marriages with Great Disparity of Ages Returned as having been Solemnized in Michigan during the Year ending December 31, 1881.

COUNTIES.	BRIDEGROOM OLDEST,—1881.				BRIDE OLDEST,—1881.				
	OCCUPATION OF BRIDEGROOM.	BIRTHPLACE.		AGE.	OCCUPATION OF BRIDEGROOM.	BIRTHPLACE.		AGE.	
		Bridegroom.	Bride.			Bridegroom.	Bride.		
Allegan.....	Farmer.....	Canada.....	Canada.....	75	31	Farmer.....	Michigan.....	20	35
Alpena.....	Painter.....	Canada.....	Canada.....	45	19	Log Scaler.....	Maine.....	27	39
Antrim.....	Farmer.....	Wisconsin.....	Michigan.....	43	15				
Baraga.....	Carpenter.....	New York.....	Michigan.....	54	27				
Barry.....	Farmer.....	Germany.....	Germany.....	59	16				
Bay.....	Real-estate Dealer.	Germany.....	Bohemia.....	59	33				
Benzie.....	Farmer.....	Nova Scotia.....	Massachusetts.....	49	24				
Berrien.....	Farmer.....	North Carolina.....	Delaware.....	76	40	Farmer.....	Indiana.....	28	44
Branch.....	Physician.....	Unknown.....	Ohio.....	80	40	Farmer.....	New York.....	45	56
Calhoun.....	Farmer.....	New York.....	New York.....	70	39	Farmer.....	Michigan.....	23	33
Cass.....	Farmer.....	Vermont.....	Michigan.....	70	22				
Charlevoix.....	Farmer.....	New York.....	Michigan.....	44	23	Farmer.....	Canada.....	35	46
Cheboygan.....	Hotel-keeper.....	New York.....	Canada.....	46	20	Farmer.....	Canada.....	36	46
Chippewa.....	Farmer.....	Canada.....	Canada.....	48	21				
Clare.....	Unknown.....	Vermont.....	Michigan.....	42	21				
Clinton.....	Farmer.....	New York.....	New York.....	57	23	Salesman.....	Michigan.....	28	33
Eaton.....	Farmer.....	Pennsylvania.....	Ohio.....	74	44	Laborer.....	Germany.....	30	40
Genesee.....	Farmer.....	New York.....	Michigan.....	66	30	Laborer.....	England.....	35	68
Grand Traverse.....	Engineer.....	New York.....	Michigan.....	47	16				
Gratiot.....	Farmer.....	New York.....	Michigan.....	47	22	Farmer.....	New York.....	47	72
Hillsdale.....	Farmer.....	New York.....	New York.....	60	28	Farmer.....	Ohio.....	37	52



## MARRIAGES—DISPARITY OF AGES.

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Houghton.....	Carpenter.....	Vermont.....	Michigan.....	50	21	Fisherman.....	Canada.....	Canada.....	22	34
Huron.....	Carpenter.....	New York.....	Michigan.....	50	18	Fisherman.....	Michigan.....	Michigan.....	28	40
Ingham.....	Farmer.....	Ohio.....	Michigan.....	45	18	Farmer.....	Michigan.....	Massachusetts.....	31	45
Ionia.....	Farmer.....	Vermont.....	Michigan.....	74	26	Farmer.....	New York.....	Michigan.....	24	32
Iosco.....	Farmer.....	Canada.....	Canada.....	46	17	Laborer.....	Germany.....	Germany.....	37	60
Isabella.....	Farmer.....	England.....	Indiana.....	70	35	Baker.....	Michigan.....	Indiana.....	29	48
Jackson.....	Retired.....	Connecticut.....	Michigan.....	69	21	Farmer.....	New York.....	New York.....	34	53
Kalamazoo.....	Farmer.....	Pennsylvania.....	New York.....	56	20	Farmer.....	New York.....	New Jersey.....	38	58
Kalkaska.....	Real Estate.....	Vermont.....	Pennsylvania.....	70	45	Farmer.....	New York.....	Michigan.....	19	27
Kent.....	Farmer.....	New York.....	Michigan.....	54	18	Farmer.....	New York.....	New York.....	30	40
Lapeer.....	Farmer.....	Ireland.....	Michigan.....	57	20	Laborer.....	Michigan.....	Michigan.....	32	42
Leelanaw.....	Laborer.....	New York.....	Sweden.....	54	28	Farmer.....	New York.....	New York.....	27	37
Lenawee.....	Farmer.....	New York.....	Ohio.....	59	26	Farmer.....	Michigan.....	New York.....	26	40
Livingston.....	Farmer.....	England.....	Michigan.....	50	22	Farmer.....	Michigan.....	Germany.....	24	41
Mackinac.....	Farmer.....	Canada.....	Michigan.....	32	16	Laborer.....	Sweden.....	New York.....	23	37
Macomb.....	Conductor.....	Vermont.....	Canada.....	40	17	Butcher.....	New York.....	New York.....	28	39
Manistee.....	Laborer.....	Germany.....	Germany.....	52	24	Laborer.....	Denmark.....	New York.....	34	45
Marquette.....	Mason.....	Germany.....	Poland.....	57	30	Explorer.....	Canada.....	Ohio.....	23	37
Mason.....	Laborer.....	Canada.....	Michigan.....	40	18	Laborer.....	Germany.....	Germany.....	24	36
Mecosta.....	Mechanic.....	Canada.....	Maine.....	41	17	Farmer.....	Michigan.....	Michigan.....	26	46
Menominee.....	Brick-layer.....	Maryland.....	Indiana.....	39	19	Miner.....	New York.....	England.....	22	40
Midland.....	Laborer.....	Maine.....	Michigan.....	45	23	Laborer.....	New York.....	New York.....	30	50
Monroe.....	Farmer.....	Ohio.....	Ohio.....	62	21	Shoe-maker.....	England.....	England.....	41	64
Montcalm.....	Lumberman.....	Pennsylvania.....	Kentucky.....	64	42	Farmer.....	New York.....	Michigan.....	37	48
Muskegon.....	Saloon-keeper.....	Norway.....	Norway.....	47	17	Laborer.....	Ireland.....	Pennsylvania.....	37	48
Newaygo.....	Farmer.....	Canada.....	Michigan.....	32	16	Farmer.....	Michigan.....	Michigan.....	37	48
Oakland.....	Farmer.....	New York.....	England.....	49	28	Farmer.....	Michigan.....	Michigan.....	37	48



TABLE XI.—CONTINUED.—Marriages with great Disparity of Ages.

COUNTIES.	BRIDE-GROOM OLDEST,—1881.				BRIDE OLDEST,—1881.			
	OCCUPATION OF BRIDE-GROOM.	BIRTHPLACE.		AGE.	OCCUPATION OF BRIDE-GROOM.	BIRTHPLACE.		AGE.
		Bridegroom.	Bride.			Bridegroom.	Bride.	
Oceana.....	Merchant.....	New York.....	Unknown.....	46	Farmer.....	Ireland.....	Pennsylvania.....	54
Oscoda.....	Peddler.....	Vermont.....	Indiana.....	40				
Otsego.....	Farmer.....	Pennsylvania..	Michigan.....	45				
Ottawa.....	Unknown.....	Ohio.....	Ohio.....	48	Farmer.....	Michigan.....	Germany.....	27
Presque Isle.....					Farmer.....	Michigan.....	Germany.....	21
Saginaw.....	Carpenter.....	New Brunswick	New York.....	52	Laborer.....	Canada.....	Germany.....	24
Sanilac.....	Farmer.....	Ontario.....	Ontario.....	55	Farmer.....	Canada.....	Canada.....	45
St. Clair.....	Farmer.....	England.....	Canada.....	56	Farmer.....	Canada.....	New York.....	44
St. Joseph.....	Farmer.....	Pennsylvania..	Michigan.....	68				
Tuscola.....	Farmer.....	Sweden.....	New York.....	42				
Van Buren.....	Wagon-maker.....	New York.....	Michigan.....	60	Painter.....	Michigan.....	New York.....	38
Washtenaw.....	Farmer.....	New York.....	Michigan.....	50	Laborer.....	Wisconsin.....	New York.....	22
Wayne.....	Fruit-Dealer.....	Italy.....	Germany.....	54	Confectioner.....	Canada.....	Michigan.....	24
Wexford.....	Drayman.....	Unknown.....	Ohio.....	58	Engineer.....	Michigan.....	New York.....	26

EXHIBIT D.—*Number of Inhabitants to One Marriage, as stated for Different Foreign Countries, the United States, and some of the States of the Union. The Statements for Michigan include only the Inhabitants of Counties Represented by Returns of Marriages.*

COUNTRY, STATE, OR CITY.	Year for which the Statement is made.	Inhabitants to one Marriage Annually.	COUNTRY, STATE, OR CITY.	Year for which the Statement is made.	Inhabitants to one Marriage Annually.
Austria.....		117	Massachusetts..... <sup>d</sup>	1871	95
Bavaria.....		160	Massachusetts..... <sup>d</sup>	1872	95
Belgium.....		122	Massachusetts..... <sup>d</sup>	1873	96
Denmark.....		129	Massachusetts..... <sup>d</sup>	1874	103
England.....		122	Massachusetts..... <sup>d</sup>	1875	121
Finland.....		141	Massachusetts..... <sup>d</sup>	1876	129
France.....		122	Massachusetts..... <sup>d</sup>	1877	130
Greece.....		174	Massachusetts..... <sup>d</sup>	1878	129
Holland.....		129	Massachusetts..... <sup>d</sup>	1879	124
Norway.....		124	Massachusetts..... <sup>d</sup>	1880	114
Prussia.....		106	Massachusetts..... <sup>d</sup>	1881	111
Russia.....		111	Michigan..... <sup>ef</sup>	1872	117
Saxony.....		107	Michigan..... <sup>ef</sup>	1873	109
Spain.....		141	Michigan..... <sup>ef</sup>	1874	110
Sweden.....		135	Michigan..... <sup>e</sup>	1874	109
United States.....	1860	122	Michigan..... <sup>ef</sup>	1875	117
New York.....	1860	135	Michigan..... <sup>ef</sup>	1876	121
Ohio.....		105	Michigan..... <sup>ef</sup>	1877	125
Minnesota.....	1860	110	Michigan..... <sup>ef</sup>	1878	120
Minnesota.....	1868	107	Michigan..... <sup>ef</sup>	1879	115
Minnesota..... <sup>a</sup>	1870	116	Michigan..... <sup>e</sup>	1880	112
New Jersey..... <sup>b</sup>	1870	135	Michigan..... <sup>ef</sup>	1880	112
New York City..... <sup>c</sup>	1870	118	Michigan..... <sup>ef</sup>	1881	114
Massachusetts..... <sup>d</sup>	1870	99			

<sup>a</sup> Taken from Statistics of Minnesota for 1870.

<sup>b</sup> There were 16 Townships from which no returns of marriages were received. Computed from data in Registration Report of New Jersey for 1870.

<sup>c</sup> Computed from data in Report of Board of Health, of Health Department, for 1870.

<sup>d</sup> Taken from Registration Report of Massachusetts for 1881, page 36.

<sup>e</sup> Marriages corrected, for additional returns, up to February 3, 1883.

<sup>f</sup> Population estimated from Censuses of 1870 and 1880.



TABLE XII.—Exhibiting, for the State and Counties, the Number of Marriages in Michigan during each of the Years 1875 to 1881, inclusive, Returned previous to May 11, 1883; for the Years 1878, 1879, and 1880, the Number as first Returned, and the Number Returned since Compilation; the Number of Inhabitants in 1880; the Number of Inhabitants in 1880 to One Marriage in 1881; and the Per Cent. of Marriages in 1881 to Inhabitants in 1880.

STATE AND COUNTIES.	MARRIAGES.												Number of Inhabit- ants in 1880 to one Mar- riage in 1881.	Per Cent. of Mar- riages to Popu- lation in 1880.	
	1875.	1876.	1877.	1878.		1879.		1880.		1881.					
	Number Re- turned previ- ous to Feb. 8, 1883.	Number Re- turned previ- ous to Feb. 8, 1883.	Number Re- turned previ- ous to Feb. 8, 1883.	Number as first Re- turned since first Com- pl. 1883.	Number Re- turned since first Com- pl. 1883.	Number as first Re- turned since first Com- pl. 1883.	Number Re- turned since first Com- pl. 1883.	Number Re- turned previ- ous to Feb. 8, 1883.	Number Re- turned. 1881.						
.....	11,800	11,893	11,844	12,921	608	12,829	13,225	591	13,816	14,149	511	14,660	14,847	110	.91
.....	13	6	9	6	.....	6	19	.....	19	12	1	13	14	222	.45
Algonquin	299	306	273	275	13	288	315	8	323	358	1	359	372	37,815	.98
Algonquin	51	47	44	54	2	56	53	12	65	60	2	62	100	8,789	1.14
Algonquin	13	25	23	32	2	34	45	1	46	39	.....	39	38	5,237	.69
Algonquin	10	11	7	7	.....	7	9	.....	9	13	.....	13	16	1,804	.89
Algonquin	190	207	214	212	2	214	246	3	249	232	3	235	169	25,317	.79
Algonquin	202	190	174	246	11	237	159	11	170	217	13	230	302	38,021	.79
Algonquin	34	32	22	21	.....	21	31	.....	31	33	.....	33	43	3,433	1.25
Algonquin	390	489	371	422	16	438	486	14	500	438	20	478	562	36,785	1.53
Algonquin	309	288	286	310	7	317	311	8	319	284	25	309	251	27,941	.90
Algonquin	348	283	297	321	12	333	330	7	337	354	3	337	329	38,452	.86
Algonquin	195	217	181	202	11	213	232	5	237	220	7	227	251	22,069	1.14
Algonquin	21	25	31	29	3	32	34	2	36	25	.....	25	54	5,115	1.06
Algonquin	16	23	45	40	3	43	41	1	42	36	5	61	73	6,524	1.12

## MARRIAGES—CORRECTED BY COUNTIES.

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Chippewa.....	12	11	23	12	.....	12	19	.....	19	20	.....	2	.....	22	52	5,248	101	.89
Clare.....	10	7	13	16	.....	16	27	.....	27	39	.....	39	42	39	42	4,187	100	1.00
Clifton.....	198	203	187	238	2	239	220	3	232	244	.....	.....	244	244	236	28,100	119	.84
Crawford.....	.....	.....	.....	.....	.....	.....	2	.....	2	13	.....	.....	13	13	11	1,159	105	.95
Delta.....	22	27	44	43	.....	43	60	.....	60	68	.....	.....	68	68	72	6,812	95	1.06
Eaton.....	271	274	298	266	8	274	275	5	280	265	.....	.....	265	265	240	31,225	130	.77
Emmet.....	14	22	30	55	.....	55	38	2	40	51	.....	.....	51	51	64	6,639	104	.96
Genesee.....	342	356	364	391	7	398	366	35	401	334	4	.....	338	338	329	39,220	119	.84
Gladwin.....	2	.....	4	4	.....	4	3	1	4	4	.....	.....	4	4	4	1,127	282	.35
Grand Traverse.....	60	63	45	52	.....	52	77	5	82	73	.....	.....	83	83	59	8,422	143	.70
Gratiot.....	142	118	137	133	6	139	177	2	179	191	1	.....	192	192	197	21,930	111	.90
Hillsdale.....	385	372	337	371	25	396	380	8	388	395	8	.....	403	403	346	32,723	95	1.06
Houghton.....	136	152	188	159	5	164	170	.....	170	169	.....	.....	169	169	195	22,473	115	.87
Huron.....	112	129	109	120	.....	120	138	4	142	134	.....	.....	134	134	134	20,089	150	.67
Ingham.....	346	291	313	305	5	400	326	3	329	331	9	.....	340	340	294	33,676	114	.87
Ionia.....	278	286	268	276	25	301	339	7	346	318	21	.....	339	339	298	33,872	114	.88
Iosco.....	22	17	40	46	.....	46	48	.....	48	86	4	.....	90	90	110	6,873	62	1.60
Isabella.....	52	56	49	56	.....	56	70	1	71	94	2	.....	96	96	99	12,159	123	.81
Isle Royal.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Jackson.....	367	364	401	358	12	370	390	6	396	359	16	.....	375	375	421	42,031	100	1.00
Kalamazoo.....	312	296	255	302	32	334	280	61	311	265	57	.....	322	322	276	34,342	124	.80
Kalkaska.....	7	11	16	30	.....	30	16	1	17	35	1	.....	36	36	31	2,537	95	1.06
Kent.....	657	611	553	579	20	599	632	10	631	618	13	.....	631	631	646	73,353	113	.83
Keweenaw.....	33	40	27	26	.....	26	7	2	9	27	2	.....	29	29	31	4,270	138	.73
Lake.....	14	12	13	16	.....	16	24	.....	24	16	.....	.....	16	16	21	3,233	154	.65
Lapeer.....	197	197	195	229	8	237	238	5	263	247	11	.....	258	258	249	30,138	121	.83

\* No returns of marriages from county clerk.

## VITAL STATISTICS OF MICHIGAN, 1881.

TABLE XII.—CONTINUED.—Marriages Corrected by Counties.

COUNTIES.	MARRIAGES.												Popula- tion, 1880, Repre- sented by Marriages in 1881.	Number of Inhabit- ants in 1880 to one Mar- riage in 1881.	Per Cent. of Mar- riages to Popu- lation in 1880.
	1875.	1876.	1877.	1878.		1879.		1880.		1881.					
	Number Re- turned previ- ous to Feb. 8, 1883.	Number Re- turned previ- ous to Feb. 8, 1883.	Number Re- turned previ- ous to Feb. 8, 1883.	Number as first Re- turned and Com- pleted.	Number Re- turned since first Re- Compl- tion.	Number Re- turned since first Re- Compl- tion.	Number as first Re- turned and Com- pleted.	Number Re- turned since first Re- Compl- tion.	Number Re- turned previ- ous to Feb. 8, 1883.	Number Re- turned previ- ous to Feb. 8, 1883.	Number Re- turned.				
Leelanaw .....	33	35	46	27	33	2	33	2	33	28	1	23	6,233	130	.74
Lenawee .....	436	429	430	408	425	50	425	50	475	436	45	431	48,343	93	1.05
Livingston .....	157	145	153	135	146	14	146	14	160	151	14	165	22,231	131	.75
Mackinac .....	13	11	17	25	18	.....	18	.....	18	23	.....	23	2,002	76	1.31
Macomb .....	208	235	223	233	239	1	240	229	1	230	232	4	236	241	.76
Manistee .....	71	76	60	75	85	6	83	85	6	91	101	23	124	113	.90
Manitou .....	.....	.....	6	11	5	.....	11	5	.....	5	7	.....	7	6	.45
Marquette .....	140	108	119	96	117	21	117	120	10	130	157	8	165	205	.81
Mason .....	52	53	62	71	.....	.....	71	80	1	87	107	.....	107	101	1.00
Mecosta .....	83	90	97	102	103	1	103	103	4	107	125	.....	125	143	1.02
Menominee .....	29	29	32	35	36	1	36	53	.....	53	120	3	123	158	1.32
Midland .....	39	23	41	54	43	.....	54	43	5	48	50	.....	50	50	.86
Missaukee .....	5	3	7	6	.....	.....	6	2	2	4	18	.....	13	8	.63
Monroe .....	308	311	334	305	360	15	330	360	18	384	314	13	327	345	1.03
Montcalm .....	202	204	214	233	244	5	233	244	14	238	289	3	292	286	.71
Montmorency .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
Muskegon .....	157	177	147	161	203	4	165	203	29	231	290	.....	290	324	1.33
Newaygo .....	87	76	97	76	108	11	87	108	3	106	132	1	133	115	.76



# MARRIAGES—CORRECTED BY COUNTIES.

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	342	344	342	342	301	20	321	304	27	331	286	10	296	307	41,537	135	74
Oakland.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Oceana.....	69	68	75	81	81	.....	81	85	.....	85	111	.....	111	97	11,699	121	.83
Ogemaw.....	.....	6	2	3	3	.....	3	.....	4	4	6	.....	6	14	1,914	137	.73
Ontonagon.....	12	13	12	10	11	.....	11	9	.....	9	14	.....	14	15	2,555	171	.58
Oscoda.....	37	47	79	75	76	.....	76	94	.....	94	117	3	120	125	10,777	86	1.16
Oscoda.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	467	150	.64
Otsego.....	4	13	5	7	8	1	8	7	2	9	23	.....	23	20	1,974	99	1.01
Ottawa.....	240	246	241	216	221	5	221	244	9	253	270	11	281	317	33,126	104	.96
Presque Isle.....	3	5	.....	4	4	.....	4	4	8	12	9	1	10	83	3,113	94	1.06
Roscommon.....	4	.....	2	3	4	1	4	17	.....	17	10	.....	10	13	1,439	112	.89
Saginaw.....	383	391	360	371	402	31	402	450	42	492	485	20	505	570	59,085	104	.96
Sanilac.....	133	118	135	152	153	1	153	147	2	149	124	26	150	125	26,341	211	.47
Schoolcraft.....	5	5	10	9	9	.....	9	7	.....	7	7	.....	7	6	1,575	263	.38
Shiawassee.....	167	188	196	165	174	9	174	154	9	163	200	5	205	206	27,039	131	.73
St. Clair.....	250	349	330	299	321	22	321	384	22	406	378	27	403	369	46,197	125	.80
St. Joseph.....	307	305	338	314	342	28	342	277	29	306	335	11	336	384	26,626	73	1.37
Tuscola.....	141	148	163	189	192	3	192	212	4	216	195	5	200	199	25,738	129	.77
Van Buren.....	238	245	249	263	286	18	286	246	10	256	254	19	283	249	30,807	124	.81
Washtenaw.....	275	275	293	268	276	10	276	319	4	323	322	.....	322	322	41,848	130	.77
Wayne.....	999	1,035	989	1,049	1,136	87	1,136	1,308	18	1,326	1,579	17	1,616	1,555	166,444	107	.93
Wexford.....	36	51	43	46	40	.....	40	61	1	62	53	.....	53	67	6,815	102	.93

\* The population of Montmorency County is included in the population of Alpena County and cannot be ascertained.

## DEATHS, 1881.

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For the year 1881 the number of deaths returned to the State Department was 19,238, being 3,136 more than was returned for any previous year. The population, according to the United States Census of 1880, represented by the returns of deaths was 1,621,927, and the ratio of deaths to population was 11.9 to 1,000.

Although the number of deaths returned would be greater with an increase in the number of inhabitants, it is probable that the registration for the year 1881 is nearer correct than any preceding year.

Corrected for omissions, the number of deaths occurring in 1881 is estimated at 27,387, and the death-rate 16.9 to 1,000 inhabitants. Even this ratio bears a suspicion of being somewhat less than the probable true ratio, and teaches us that, with our present system of registration, the greatest possible value to be derived from the data collected must pertain, not to the study of ratio of deaths to population, but to that of causes of deaths to each other, of births to deaths, the numbers being sufficiently great to make such study profitable. Also the relation of deaths, especially where the number returned is considerable, to meteorological conditions, to seasons, and to the social circumstances of communities.

The average number of deaths for certain specified periods of time, as returned and as corrected for omissions in enumerating, including those in unknown month, is as follows:

PERIODS OF TIME.	Deaths as Returned.	Corrected as per Exhibit C, 4th line.
Per quarter.....	4,809.50	6,830.25
Per month.....	1,603.17	2,276.75
Per week.....	369.96	525.40
Per day.....	52.71	74.85

## THE DEATH-RATE IN MICHIGAN.

The following tabular statement shows the death-rate in Michigan, both as regards the number of deaths returned, and the number as corrected for omissions in the enumeration. It is worthy of careful study :

	Inhabitants in 1880 Represented by Deaths in 1881.	Deaths as Returned.	Deaths Corrected for Omissions in Enumer- ating.	PER CENT. OF DEATHS TO INHABITANTS.	
				Deaths as Returned.	Deaths Corrected for Omissions.
Total.....	1,621,927	19,233	27,387	1.19	1.69

Turning to Table I. an opportunity is given to compare the relative mortality of the different seasons for a series of years. The greatest number of deaths is shown to have occurred in that quarter of the year ending with September in each of the years represented. The Registration Reports for the same years, for the State of Massachusetts, also show the greatest mortality to have occurred in the same quarter. A much less variation in the per cent. of deaths for other seasons is represented in both States.

TABLE I.—Deaths in Michigan by Quarters of the Year, Exhibiting the Number and Per Cent. of Total as Returned for each of the Years 1876 to 1881, inclusive.

TOTALS, AND MONTHS WITH WHICH QUARTERS END.	1876.		1877.		1878.		1879.		1880.		1881.	
	Num- ber.	Per Ct. of Total.	Num- ber.	Per Ct. of Total.	Num- ber.	Per Ct. of Total.	Num- ber.	Per Ct. of Total.	Num- ber.	Per Ct. of Total.	Num- ber.	Per Ct. of Total.
Totals.....	12,576	100.00	12,919	100.00	12,766	100.00	14,407	100.00	16,102	100.00	19,238	100.00
As Returned, { March.....	2,460	19.56	2,599	20.12	2,449	19.18	3,009	20.89	3,011	18.70	3,458	17.98
June.....	2,803	22.29	2,829	21.90	2,822	22.10	3,159	21.93	3,491	21.65	4,160	21.62
Sept.....	4,009	31.88	3,999	30.95	3,731	29.23	4,123	28.62	4,983	30.95	6,248	32.48
Dec.....	3,273	26.02	3,436	26.60	3,740	29.30	4,075	28.28	4,574	28.40	5,306	27.58
Unknown	31	.25	56	.43	24	.19	41	.28	43	.27	66	.34
Average.....	3,144.00	25.00	3,229.75	25.00	3,191.50	25.00	3,601.75	25.00	4,025.50	25.00	4,809.50	25.00
Totals.....	18,389	100.00	18,341	100.00	18,866	100.00	20,583	100.00	26,256	100.00	27,337	100.00
As Corrected for Omissions, { March.....	4,133	22.58	4,227	23.05	4,217	22.35	4,933	23.97	5,877	22.38	5,679	20.74
June.....	4,364	23.73	4,259	23.22	4,468	23.68	4,793	23.25	6,183	23.55	6,314	23.05
Sept.....	5,661	30.78	5,495	29.96	5,340	28.30	5,703	27.71	7,837	29.85	8,642	31.56
Dec.....	4,180	22.73	4,304	23.47	4,817	25.53	5,113	24.84	6,316	24.06	6,686	24.41
Unk.....	31	.17	56	.30	24	.13	41	.20	43	.16	66	.24
Average.....	4,597	25.00	4,583	25.00	4,717	25.00	5,146	25.00	6,188	25.00	6,847	25.00

\* Including deaths in unknown month.

*Deaths Returned as having occurred in Michigan, by Months, Exhibiting the Number and Per Cent. of Total the Years 1876, 1877, 1878, 1879, 1880, and 1881, the months arranged in order by Number of Deaths, the Greatest Number first.*

Rank	1876.			1877.			1878.			1879.			1880.			1881.		
	Year and Months.	Num-ber.	Per Ct. of Total.	Year and Months.	Num-ber.	Per Ct. of Total.	Year and Months.	Num-ber.	Per Ct. of Total.	Year and Months.	Num-ber.	Per Ct. of Total.	Year and Months.	Num-ber.	Per Ct. of Total.	Year and Months.	Num-ber.	Per Ct. of Total.
1	Aug...	12,576	100.00	Year...	12,919	100.00	Year...	12,766	100.00	Year...	14,407	100.00	Year...	16,102	100.00	Year...	19,238	100.00
2	Aug...	1,507	11.98	Aug...	1,539	12.07	Aug...	1,371	10.74	Aug...	1,337	10.67	Aug...	1,780	11.05	Sept...	2,301	11.96
3	Sept...	1,423	11.32	Sept...	1,400	10.84	Dec...	1,369	10.72	Dec...	1,521	10.56	Sept...	1,676	10.41	Aug...	2,246	11.67
4	Dec...	1,153	9.17	Oct...	1,321	9.45	Sept...	1,343	10.52	Sept...	1,403	9.74	Dec...	1,617	10.04	Oct...	1,941	10.09
5	Oct...	1,131	8.99	Oct...	1,153	8.94	Oct...	1,190	9.32	Oct...	1,268	8.93	July...	1,527	9.48	Dec...	1,748	9.09
6	July...	1,079	8.53	Nov...	1,060	8.20	Nov...	1,181	9.25	Nov...	1,268	8.80	Nov...	1,486	9.23	July...	1,701	8.84
7	Nov...	989	7.86	July...	1,040	8.05	April...	1,029	8.06	July...	1,183	8.21	Oct...	1,471	9.14	Nov...	1,617	8.41
8	April...	978	7.78	Mar...	990	7.66	July...	1,017	7.97	April...	1,174	8.15	April...	1,289	8.01	May...	1,457	7.57
9	Mar...	975	7.75	April...	978	7.57	Mar...	930	7.28	Mar...	1,114	7.73	May...	1,166	7.24	April...	1,427	7.42
10	May...	970	7.71	May...	976	7.55	May...	923	7.23	May...	1,083	7.89	Mar...	1,149	7.14	Mar...	1,315	6.84
11	June...	835	6.80	June...	875	6.77	June...	870	6.82	Feb...	992	6.86	June...	1,036	6.43	June...	1,276	6.63
12	Feb...	800	6.36	Feb...	843	6.53	Feb...	789	6.18	Jan...	903	6.27	Feb...	1,002	6.22	Feb...	1,078	5.60
	Jan...	685	5.45	Jan...	766	5.93	Jan...	730	5.72	June...	902	6.26	Jan...	860	5.34	Jan...	1,065	5.54
	Unk...	31	.25	Unk...	56	.43	Unk...	24	.19	Unk...	41	.28	Unk...	43	.27	Unk...	68	.34
	AV.....	1,048.00	8.33	AV.....	1,076.56	8.33	AV.....	1,063.83	8.33	AV.....	1,200.56	8.33	AV.....	1,311.83	8.33	AV.....	1,603	8.33



The monthly mortality and the influence of seasons upon mortality may be further studied in Table II. Of the first quarter of the year, the mortality in Michigan was greatest in March; of the second, in May; of the third, in September; and of the fourth, in October.

Table II. also shows when the monthly mortality was greater than the average.

Table III. shows the death-rate of the males as compared with that of the females in Michigan. During the year, 115 males died to 100 females. We must consider, however, that the male population is somewhat in excess of the female in Michigan. Nevertheless, this does not entirely account for the difference of mortality between the two sexes. The greatest excess of deaths among the males occurred in the month of March, and the least in May.

TABLE III.—*Number and Per Cent. of Deaths of Males and of Females in Michigan in 1881, from all Causes, as Returned, by Months. (Unknown sex excluded.)*

YEAR AND MONTHS, 1881.	DEATHS AS RETURNED, 1881.		PER CENT. OF EACH SEX TO TOTAL OF BOTH SEXES.				Males to 100 Fe- males.
	Males.	Fe- males.	Males.	Fe- males.	EXCESS OF THE SEXES.		
					Males.	Females.	
YEAR 1881 .....	10,263	8,910	53.53	46.47	7.06	-----	115
January .....	552	508	52.08	47.92	4.16	-----	109
February .....	562	509	52.47	47.53	4.94	-----	110
March .....	732	580	55.79	44.21	11.58	-----	126
April .....	803	624	56.27	43.73	12.54	-----	129
May .....	737	714	50.79	49.21	1.58	-----	103
June .....	673	598	52.95	47.05	5.90	-----	113
July .....	921	771	54.43	45.57	8.86	-----	119
August .....	1,198	1,038	53.58	46.42	7.16	-----	115
September .....	1,226	1,071	53.37	46.63	6.74	-----	114
October .....	907	943	51.39	48.61	2.78	-----	100
November .....	895	717	55.52	44.48	11.04	-----	125
December .....	927	811	53.34	46.66	6.68	-----	114
Unknown .....	40	26	60.61	39.39	21.22	-----	154

In Exhibit A the numbers are equalized for months of uniform length, so that, in studying the relations of the months as regards the number of deaths, no allowance need be made for different lengths of the months.

**EXHIBIT A.**—*By Sex, the Number of Deaths Returned as having occurred in Michigan during the Year 1881, by Months Equalized to 30.44 days each;—Number of Deaths in each Month; Per Cent. of Deaths in each Month to Total Deaths during the Year; and Per Cent. and Excess of Per Cent. of Deaths of each Sex to Total of both Sexes.*

YEAR AND MONTHS, 1881.	NUMBER OF DEATHS, IN 1881, AS RETURNED, EQUALIZED.				PER CT. OF DEATHS IN EACH MONTH TO TOTAL DURING THE YEAR.				PER CT. OF EACH SEX TO TOTAL OF BOTH SEXES, UNKNOWN SEX EX- CLUDED.			
	Total.	Males.	Fe- males.	Unk.	Total.	Males.	Fe- males.	Unk.	Males.	Fe- males.	EXCESS.	
											Males.	Fe- males.
YEAR, 1881. <sup>a</sup>	19,222	10,255	8,902	65	100.00	100.00	100.00	100.00	53.53	46.47	7.06	-----
January ....	1,046	542	499	5	5.44	5.29	5.61	7.09	52.07	47.93	4.14	-----
February ..	1,171	611	553	7	6.09	5.96	6.21	10.77	52.49	47.51	4.98	-----
March.....	1,292	719	570	3	6.72	7.01	6.40	4.62	55.78	44.22	11.56	-----
April.....	1,448	815	633	-----	7.53	7.96	7.11	-----	56.28	43.72	12.56	-----
May.....	1,431	724	701	6	7.44	7.06	7.87	9.23	50.81	49.19	1.62	-----
June.....	1,296	683	607	5	6.74	6.66	6.82	7.69	52.95	47.05	5.90	-----
July.....	1,670	904	757	9	8.69	8.82	8.50	13.85	54.43	45.57	8.86	-----
August.....	2,205	1,176	1,019	10	11.47	11.47	11.45	15.38	53.56	46.42	7.16	-----
September..	2,335	1,244	1,087	4	12.15	12.13	12.21	6.15	53.37	46.63	6.74	-----
October....	1,906	979	926	1	9.92	9.55	10.40	1.54	51.39	48.61	2.78	-----
November..	1,641	906	728	5	8.54	8.85	8.18	7.09	55.50	44.50	11.00	-----
December..	1,718	910	796	10	8.93	8.87	8.94	15.38	53.34	46.66	6.68	-----
Unknown..	66	40	26	-----	.34	.39	.29	-----	60.61	39.39	21.22	-----
Average <sup>b</sup>	1,596	851	740	5	8.33	8.33	8.33	8.33	-----	-----	-----	-----

<sup>a</sup> Sixteen—8 males and 8 females—lost in equalization.

<sup>b</sup> Unknown month excluded.

Exhibit B may be studied with profit in connection with tables I. and II. and Exhibit A.

**EXHIBIT B.**—*Months arranged in Order by Number of Deaths—those having the greatest Number first,—in Michigan for each of the Years 1878 to 1881, inclusive, as per Registration Returns, and for each of the Years 1879, 1880, and 1881, Corrected for Omissions in Enumerating; in Massachusetts for each of the Years 1879, 1880, and 1881; also, in Rhode Island for each of the Years 1879, 1880, and 1881.*

ORDER.	MICHIGAN, AS PER REGISTRATION RETURNS, INCLUDING STILL-BIRTHS.				MICHIGAN, CORRECTED FOR OMISSIONS IN ENUMERATING, INCLUDING STILL-BIRTHS.			MASSACHUSETTS, INCLUDING STILL-BIRTHS.			RHODE ISLAND EXCLUDING STILL-BIRTHS.		
	1878.	1879.	1880.	1881.	1879.	1880.	1881.	1879.	1880.	1881.	1879.	1880.	1881.
1.....	Aug.	Aug.	Aug.	Sept.	Aug.	Aug.	Aug.	Jan.	Aug.	Aug.	Jan.	July.	Aug.
2.....	Dec.	Dec.	Sept.	Aug.	Sept.	Sept.	Sept.	Aug.	July.	Sept.	Aug.	Aug.	Jan.
3.....	Sept.	Sept.	Dec.	Oct.	Dec.	July.	Oct.	Mar.	Sept.	April	Dec.	Mar.	July.
4.....	Oct.	Oct.	July.	Dec.	Apr.	Apr.	July.	Apr.	Dec.	Mar.	Oct.	Jan.	Oct.
5.....	Nov.	Nov.	Nov.	July.	Mar.	Mar.	Apr.	July.	Mar.	Oct.	Nov.	Oct.	Apr.
6.....	Apr.	July.	Oct.	Nov.	July.	Dec.	May.	Feb.	Apr.	Jan.	July.	Apr.	Sept.
7.....	July.	Apr.	Apr.	May.	Oct.	Oct.	Dec.	Dec.	Oct.	July.	Mar.	May.	May.
8.....	Mar.	Mar.	May.	Apr.	May.	May.	Mar.	May.	May.	Dec.	Apr.	Sept.	Mar.
9.....	May.	May.	Mar.	Mar.	Feb.	Nov.	Nov.	Sept.	Nov.	Feb.	Sept.	Dec.	Feb.
10.....	J'ne.	Feb.	J'ne.	J'ne.	Nov.	Feb.	J'ne.	Oct.	Jan.	May.	Feb.	Feb.	Dec.
11.....	Feb.	Jan.	Feb.	Feb.	Jan.	J'ne.	Jan.	Nov.	Feb.	Nov.	May.	Nov.	Nov.
12.....	Jan.	J'ne.	Jan.	Jan.	J'ne.	Jan.	Feb.	J'ne.	J'ne.	J'ne.	J'ne.	J'ne.	J'ne.

#### OMISSIONS IN THE ENUMERATION OF DEATHS.

The method of correcting the returns for omissions has been amply explained in preceding reports. Exhibits C and E, contain details of the work, and some of the resulting statements.

—Deaths in Michigan during the Year 1881, as Returned; as Corrected for Omissions in Enumerating, the  
 —adjusted for Increase of Population during the Year covered by the Returns, and the Deaths as thus Corrected and  
 Equalized for the several Months, Equalized for Months of a uniform length of 30.44 days; also, indicating some of the  
 steps by which these results have been reached.

	TOTAL.	MONTHS, 1881.											
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Deaths as returned by Registration Officers.....	19,172	1,043	1,078	1,315	1,427	1,457	1,576	1,701	2,246	2,301	1,941	1,617	1,743
Per cent. of deaths to be added for correction for time elapsing before enumeration.....	68.34	61.54	60.34	55.94	51.04	51.04	47.34	43.04	38.74	34.44	30.14	25.81	21.54
Number of deaths to be added for above correction.....	8,149	723	696	792	788	752	604	732	870	792	559	418	377
Deaths, if enumerated in months of occurrence.....	27,321	1,766	1,774	2,107	2,225	2,209	1,880	2,433	3,116	3,093	2,520	2,035	2,125
Per cent. of deaths to be added to equalize them to population at close of year.....	4.21	3.86	3.51	3.16	2.81	2.46	2.11	1.76	1.41	1.06	.71	.35	.71
Deaths to be added to equalize them to population at close of year.....	594	76	69	74	70	62	46	51	55	44	27	14	7
Deaths, as corrected, equalized to population at close of year.....	27,915	1,874	1,842	2,181	2,295	2,271	1,926	2,484	3,171	3,137	2,563	2,049	2,132
Days and hundredths by which the months should be increased or diminished to equalize them to months of uniform length.....	—56	+ 2.44	—56	+ 4.4	—56	—56	+ 4.4	—56	—56	+ 4.4	—56	+ 4.4	—56
Number by which the deaths should be increased or diminished to equalize them to months of uniform length.....	—2	—34	+ 161	—39	+ 34	—41	+ 28	—45	—57	+ 46	—46	+ 30	—39
Deaths, corrected and equalized, equalized to months of uniform length.....	27,913	1,840	2,003	2,142	2,329	2,230	1,954	2,439	3,114	3,103	2,507	2,079	2,093

a Excluding 66 in unknown month.



Exhibit D represents the months in order, those having the greatest number of deaths first, according to corrections for omissions in enumeration, for each of the years 1878-1881. The number of deaths and per cent. of the total, is also given, together with the average number and per cent. This exhibit may likewise be compared with Table II.

EXHIBIT D.—Deaths during the Years 1878 to 1881, inclusive, as Corrected for Omissions in the Enumeration, Exhibiting the Number and Per Cent. of Total, by Months arranged in Order by Number, Months having the greatest number first.

ORDER.	1878.			1879.			1880.			1881.		
	Months.	Num-ber.	Per Ct. of Total.	Months.	Num-ber.	Per Ct. of Total.	Months.	Num-ber.	Per Ct. of Total.	Months.	Num-ber.	Per Ct. of Total.
	Total...	18,866	100.00	Total...	20,583	100.00	Total...	26,256	100.00	Total...	27,387	100.00
1	Aug.....	1,968	10.43	Aug.....	2,129	10.34	Aug.....	2,803	10.68	Aug....	3,116	11.38
2	Sept.....	1,863	9.87	Sept.....	1,884	9.15	Sept.....	2,532	9.64	Sept...	3,093	11.29
3	Dec.....	1,700	9.01	Dec.....	1,847	8.97	July.....	2,502	9.53	Oct....	2,526	9.22
4	Apr.....	1,676	8.88	Apr.....	1,827	8.88	Apr.....	2,359	8.98	July...	2,433	8.88
5	Oct.....	1,593	8.44	Mar.....	1,782	8.66	Mar.....	2,176	8.29	Apr....	2,225	8.12
6	Mar.....	1,560	8.27	July.....	1,690	8.21	Dec.....	2,133	8.12	May...	2,209	8.07
7	Nov.....	1,524	8.08	Oct.....	1,672	8.12	Oct.....	2,128	8.10	Dec....	2,125	7.76
8	July.....	1,509	8.00	May.....	1,639	7.96	May.....	2,060	7.85	Mar....	2,107	7.69
9	May.....	1,459	7.73	Feb.....	1,629	7.92	Nov.....	2,055	7.83	Nov....	2,035	7.43
10	Feb.....	1,362	7.22	Nov.....	1,594	7.74	Feb.....	1,962	7.47	June..	1,880	6.87
11	June.....	1,333	7.07	Jan.....	1,522	7.40	June.....	1,764	6.72	Jan....	1,798	6.57
12	Jan.....	1,295	6.86	June.....	1,327	6.45	Jan.....	1,739	6.62	Feb....	1,774	6.48
	Unk.....	24	.13	Unk.....	41	.20	Unk.....	43	.16	Unk....	66	.24
	Av..... <sup>a</sup>	1,572	8.33	Av..... <sup>a</sup>	1,715	8.33	Av..... <sup>a</sup>	2,188	8.33	Av..... <sup>a</sup>	2,282	8.33

<sup>a</sup> Including deaths in unknown month.

EXHIBIT C.—Deaths in Michigan during the Year 1881, as Returned; as Corrected for Omissions in Enumerating, the same Equalized for Increase of Population during the Year covered by the Returns, and the Deaths as thus Corrected and Equalized for the several Months, Equalized for Months of a uniform length of 30.44 days; also, indicating some of the steps by which these results have been reached.

	TOTAL <sup>a</sup>	MONTHS, 1881.											
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Deaths as returned by Registration Officers.....	19,172	1,065	1,078	1,315	1,427	1,457	1,276	1,701	2,246	2,301	1,941	1,617	1,743
Per cent. of deaths to be added for correction for time elapsing before enumeration.....	.....	68.84	61.54	60.24	55.94	51.64	47.34	43.04	38.74	34.44	30.14	25.81	21.51
Number of deaths to be added for above correction.....	8,149	733	696	792	798	752	604	732	870	792	555	418	377
Deaths, if enumerated in months of occurrence.....	27,321	1,798	1,774	2,107	2,225	2,209	1,880	2,433	3,116	3,093	2,536	2,035	2,125
Per cent. of deaths to be added to equalize them to population at close of year.....	.....	4.21	3.86	3.51	3.16	2.81	2.46	2.11	1.76	1.41	1.06	.71	.35
Deaths to be added to equalize them to population at close of year.....	594	76	68	74	70	62	46	51	55	44	27	14	7
Deaths, as corrected, equalized to population at close of year.....	27,915	1,874	1,842	2,181	2,295	2,271	1,926	2,484	3,171	3,137	2,563	2,049	2,132
Days and hundredths by which the months should be increased or diminished to equalize them to months of uniform length.....	.....	— .56	+ 2.44	— .56	+ .44	— .56	+ .44	— .56	— .56	+ .44	— .56	+ .44	— .56
Number by which the deaths should be increased or diminished to equalize them to months of uniform length.....	— 2	— 34	+ 161	— 39	+ 34	— 41	+ 28	— 45	— 57	+ 46	— 40	+ 30	— 39
Deaths, corrected and equalized, equalized to months of uniform length..	27,913	1,840	2,003	2,142	2,329	2,230	1,954	2,439	3,114	3,183	2,567	2,079	2,093

<sup>a</sup> Excluding 66 in unknown month.



TABLE IV.—*Exhibiting, by Sex, and by Age in Periods of Years, the Number and Proportion of Persons Returned as having Died in Michigan during the Year 1881; also the Excess of Persons of each Sex.*

AGES IN YEARS AND PERIODS.	NUMBER OF DEATHS, 1881.				PER CT. OF DEATHS AT EACH AGE TO TOTAL AT ALL AGES.			PER CT. OF EACH SEX TO TOTAL OF BOTH SEXES.				EXCESS OF THE SEXES BY NUMBER.		Males to 100 Fe- males
	Total.	Males.	Fe- males.	Unk.	Total.	Males.	Fe- males.	Males.	Fe- males.	Excess.		Males.	Fe- males.	
										Males.	Fe- males.			
All Ages...	19,238	10,263	8,910	65	100.00	100.00	100.00	53.53	46.47	7.06	.....	1,353	.....	115.19
Under 1....	4,635	2,586	2,013	56	24.20	25.20	22.59	56.23	43.77	12.46	.....	573	.....	128.46
1 to 2.....	1,372	756	615	1	7.13	7.37	6.90	55.14	44.86	10.28	.....	141	.....	122.93
2 to 3.....	781	407	373	1	4.06	3.97	4.19	52.18	47.82	4.36	.....	34	.....	109.11
3 to 4.....	572	314	257	1	2.97	3.06	2.88	54.99	45.01	9.98	.....	57	.....	122.18
4 to 5.....	436	233	203	.....	2.27	2.27	2.23	53.44	46.56	6.88	.....	30	.....	114.58
Under 5....	7,816	4,296	3,461	59	40.63	41.86	38.84	55.38	44.62	10.76	.....	835	.....	124.13
5 to 10.....	1,476	732	744	.....	7.67	7.13	8.35	49.59	50.41	.....	.82	.....	12	98.39
10 to 15....	822	400	422	.....	4.27	3.90	4.74	48.66	51.34	.....	2.68	.....	22	94.78
15 to 20....	827	379	448	.....	4.30	3.69	5.03	45.83	54.17	.....	8.34	.....	69	84.60
20 to 25....	968	483	485	.....	5.03	4.71	5.44	49.90	50.10	.....	.20	.....	2	99.59
25 to 30....	763	391	372	.....	3.97	3.81	4.18	51.25	48.75	2.50	.....	19	.....	103.11
30 to 35....	616	289	327	.....	3.20	2.82	3.67	46.92	53.08	.....	6.16	.....	38	88.38
35 to 40....	560	272	288	.....	2.91	2.65	3.23	48.57	51.43	.....	2.86	.....	16	94.44
40 to 45....	512	257	255	.....	2.68	2.50	2.86	50.20	49.80	.40	.....	2	.....	100.78
45 to 50....	492	254	238	.....	2.56	2.47	2.67	51.63	48.37	3.26	.....	16	.....	106.72
50 to 55....	508	299	209	.....	2.64	2.91	2.35	58.86	41.14	17.72	.....	90	.....	143.06
55 to 60....	509	273	236	.....	2.65	2.66	2.65	53.63	46.37	7.26	.....	37	.....	115.68
60 to 65....	574	321	253	.....	2.98	3.13	2.84	55.92	44.08	11.84	.....	68	.....	126.88
65 to 70....	562	330	232	.....	2.92	3.22	2.60	58.72	41.28	17.44	.....	98	.....	142.24
70 to 75....	649	350	259	.....	3.37	3.80	2.91	60.09	39.91	20.18	.....	131	.....	150.58
75 to 80....	581	330	251	.....	3.02	3.22	2.82	56.80	43.20	13.60	.....	79	.....	131.47
80 to 85....	430	245	185	.....	2.24	2.39	2.08	56.98	43.02	13.96	.....	60	.....	132.43
85 to 90....	193	108	85	.....	1.00	1.05	.95	55.96	44.04	11.82	.....	23	.....	127.06
90 to 95....	60	38	31	.....	.36	.37	.34	55.07	44.93	10.14	.....	7	.....	122.58
95 to 100....	18	9	9	.....	.09	.09	.10	50.00	50.00	.....	.....	.....	.....	100.00
100 and over	8	4	4	.....	.04	.04	.04	50.00	50.00	.....	.....	.....	.....	100.00
Unk. Ages.	285	163	116	6	1.48	1.59	1.30	58.42	41.58	16.84	.....	47	.....	140.53

EXHIBIT E.—Deaths in Michigan during the Year 1881, as Returned, as Corrected for Omissions in Enumerating, and as thus Corrected, Equalized to Months of uniform length of 30.44 days each.

	TOTAL.	MONTHS, 1881.											
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Deaths as returned by Registration Officers.....	19,172	1,065	1,078	1,315	1,437	1,457	1,276	1,701	2,246	2,301	1,941	1,617	1,748
per cent. of deaths to be added for correction for time elapsing before enumeration.....	68.84	61.54	60.24	55.94	55.94	51.64	47.34	43.04	32.74	34.44	30.14	25.84	21.54
Number of deaths to be added for above correction.....	8,119	733	686	792	798	752	604	732	870	792	585	418	377
Deaths, if enumerated in month of occurrence.....	27,321	1,798	1,774	2,107	2,235	2,209	1,880	2,433	3,116	3,093	2,526	2,035	2,125
Days and hundredths by which the months should be increased or diminished to equalize them to months of uniform length.....	—56	+ 2.44	—56	+ .44	—56	—56	+ .44	—56	—56	+ .44	—56	+ .44	—56
Number by which the deaths should be increased or diminished to equalize them to months of uniform length.....	—3	—32	+ 155	—38	+ 33	—40	+ 28	—44	—56	+ 45	—46	+ 30	—33
Deaths, corrected and equalized to months of uniform length.....	27,318	1,766	1,929	2,069	2,258	2,167	1,908	2,389	3,060	3,133	2,480	2,065	2,087

\* Excluding 66 in unknown month.

#### AGES OF PERSONS WHO DIED IN MICHIGAN IN 1881.

Table IV. shows the number and per cent. of deaths in Michigan in 1881, according to age and sex. Of the deaths at all ages, there were about 7 per cent. more males than females. Under five years of age the per cent. of deaths was considerably greater among the males. Between the ages of five and twenty-five years there was an excess of deaths among the females, being greatest between the ages of fifteen and twenty years, a fact that has considerable significance. The greatest number of deaths occurred among infants under one year of age. Further details upon this subject are shown in Exhibit F. The number and per cent. of deaths at different periods of life that occurred during each month in 1881 are shown in Exhibit G.



TABLE IV.—*Exhibiting, by Sex, and by Age in Periods of Years, the Number and Proportion of Persons Returned as having Died in Michigan during the Year 1881; also the Excess of Persons of each Sex.*

AGES IN YEARS AND PERIODS.	NUMBER OF DEATHS, 1881.				PER CT. OF DEATHS AT EACH AGE TO TOTAL AT ALL AGES.			PER CT. OF EACH SEX TO TOTAL OF BOTH SEXES.				EXCESS OF THE SEXES BY NUMBER.		Males to 100 Fe- males
	Total.	Males.	Fe- males.	Unk.	Total.	Males.	Fe- males.	Males.	Fe- males.	Excess.		Males.	Fe- males.	
										Males.	Fe- males.			
All Ages...	19,238	10,263	8,910	65	100.00	100.00	100.00	53.53	46.47	7.06		1,353		115.19
Under 1....	4,635	2,586	2,013	56	24.20	25.20	22.59	56.23	43.77	12.46		573		128.46
1 to 2.....	1,372	756	615	1	7.13	7.37	6.90	55.14	44.86	10.28		141		122.93
2 to 3.....	781	407	373	1	4.06	3.97	4.19	52.18	47.82	4.36		34		109.11
3 to 4.....	572	314	257	1	2.97	3.06	2.88	54.99	45.01	9.98		57		122.18
4 to 5.....	436	233	203		2.27	2.27	2.28	53.44	46.56	6.88		30		114.58
Under 5....	7,816	4,296	3,461	59	40.63	41.86	38.84	55.38	44.62	10.76		835		124.13
5 to 10....	1,476	732	744		7.67	7.13	8.35	49.59	50.41		.82		12	98.39
10 to 15....	822	400	422		4.27	3.90	4.74	48.66	51.34		2.68		22	94.78
15 to 20....	827	379	448		4.30	3.69	5.03	45.83	54.17		8.34		69	84.60
20 to 25....	968	483	485		5.03	4.71	5.44	49.90	50.10		.20		2	99.59
25 to 30....	763	391	372		3.97	3.81	4.18	51.25	48.75	2.50		19		105.11
30 to 35....	616	289	327		3.20	2.82	3.67	46.92	53.08		6.16		38	88.38
35 to 40....	560	272	288		2.91	2.65	3.23	48.57	51.43		2.86		16	94.44
40 to 45....	512	257	255		2.66	2.50	2.86	50.20	49.80	.40		2		100.78
45 to 50....	492	254	238		2.56	2.47	2.67	51.63	48.37	3.26		16		106.72
50 to 55....	508	299	209		2.64	2.91	2.35	58.86	41.14	17.72		90		145.06
55 to 60....	509	273	236		2.65	2.66	2.65	53.63	46.37	7.26		37		115.68
60 to 65....	574	321	253		2.98	3.13	2.84	55.92	44.08	11.84		68		126.88
65 to 70....	562	330	232		2.92	3.22	2.60	58.72	41.28	17.44		98		142.24
70 to 75....	649	350	259		3.37	3.80	2.91	60.09	39.91	20.18		131		150.58
75 to 80....	581	330	251		3.02	3.22	2.82	56.80	43.20	13.60		79		131.47
80 to 85....	430	245	185		2.24	2.39	2.08	56.98	43.02	13.96		60		132.43
85 to 90....	193	108	85		1.00	1.03	.95	55.96	44.04	11.82		23		127.06
90 to 95....	69	38	31		.36	.37	.34	55.07	44.93	10.14		7		122.58
95 to 100....	18	9	9		.09	.09	.10	50.00	50.00					100.00
100 and over	8	4	4		.04	.04	.04	50.00	50.00					100.00
Unk. Ages.	285	153	116	6	1.48	1.59	1.30	58.42	41.58	16.84		47		140.52

EXHIBIT G.—*The Relation of the Deaths at Different Periods of Age to Deaths at All Ages, by Months; and for the same Period of Age, the Relation of the Deaths in each Month to the Deaths in the Year 1881, according to the Returns.*

DEATHS BY AGES IN PERIODS OF YEARS.	YEARS, 1881. <sup>a</sup>	MONTHS, 1881.											
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
All Ages.....	19,172	1,083	1,078	1,313	1,427	1,437	1,276	1,701	2,246	2,301	1,941	1,617	1,748
Under 1.....	4,646	249	266	208	253	284	822	627	760	611	419	283	368
{ Number.....													
{ Per Cent. of All Ages.....	21.23	23.33	24.68	22.66	17.73	19.49	25.24	30.98	33.84	26.53	21.59	17.87	21.03
Under 5.....	100.00	5.36	5.73	6.41	5.45	6.11	6.93	11.34	16.36	13.15	9.02	6.22	7.92
{ Number.....	7,804	409	430	423	455	486	547	830	1,207	1,036	741	637	618
{ Per Cent. of All Ages.....	40.71	38.40	39.39	37.49	31.59	33.36	42.86	48.79	53.74	45.02	38.19	34.45	35.07
{ Per Cent. of Deaths, 1881.....	100.00	5.24	5.51	6.32	5.53	6.23	7.01	10.64	15.47	13.27	9.49	7.14	7.85
5 to 10.....	1,475	92	70	78	105	121	94	114	131	107	184	141	148
{ Number.....													
{ Per Cent. of All Ages.....	7.69	8.64	6.49	5.93	7.36	8.30	7.37	6.70	5.83	8.56	9.48	8.72	8.47
{ Per Cent. of Deaths, 1881.....	100.00	6.24	4.75	5.29	7.12	8.20	6.37	7.73	8.88	13.36	12.47	9.56	10.03
10 to 20.....	1,645	84	72	107	144	144	101	134	154	192	208	168	157
{ Number.....													
{ Per Cent. of All Ages.....	8.58	7.80	6.68	8.14	10.09	9.88	7.92	7.88	6.97	8.34	10.72	10.39	8.98
{ Per Cent. of Deaths, 1881.....	100.00	5.11	4.38	6.51	8.75	8.75	6.14	8.15	8.15	11.67	12.64	10.21	9.54
20 to 50.....	8,901	228	285	283	307	316	267	293	352	406	397	387	398
{ Number.....													
{ Per Cent. of All Ages.....	20.35	21.41	21.80	21.52	21.51	23.75	20.92	17.34	15.07	17.65	20.45	23.93	22.77
{ Per Cent. of Deaths, 1881.....	100.00	5.85	6.02	7.26	7.97	8.87	6.84	7.56	9.02	10.41	10.18	9.92	10.20
50 and over.....	4,083	231	261	332	392	346	256	804	384	435	389	845	413
{ Number.....													
{ Per Cent. of All Ages.....	21.32	21.69	24.21	23.25	27.47	23.75	20.06	17.87	17.10	18.90	20.04	21.34	23.63
{ Per Cent. of Deaths, 1881.....	100.00	5.63	6.39	8.12	9.50	8.46	6.26	7.44	9.39	10.64	9.92	8.44	10.10
Unknown Ages.....	259	21	10	22	24	14	11	24	38	35	22	19	19
{ Number.....													
{ Per Cent. of All Ages.....	1.35	1.97	.93	1.08	.96	.86	.86	1.41	1.69	1.52	1.13	1.18	1.09
{ Per Cent. of Deaths, 1881.....	100.00	8.11	3.86	8.49	9.27	5.41	4.25	9.27	14.67	13.51	8.49	7.81	7.34

TABLE V.—*Exhibiting, by Sex and by Age in Periods of Years, the Number of Persons Returned as having Died in Michigan during the Year, and in each Month of the Year 1881.*

AGES IN PERIODS OF YEARS.	SEX.	YEAR, 1881.	MONTHS, 1881.												Unk.
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
All Ages.....	Total.....	19,238	1065	1078	1315	1427	1457	1276	1701	2246	2301	1941	1617	1748	66
	Males.....	10,263	552	562	732	803	787	673	921	1188	1226	997	895	927	40
	Females.....	8,910	508	509	580	624	714	598	771	1038	1071	943	717	811	26
	Unknown.....	65	5	7	3	---	6	5	9	10	4	1	5	10	---
All Under 1.....	Total.....	4,655	249	266	298	253	234	322	527	760	611	419	289	368	9
	Males.....	2,586	128	152	180	157	146	181	296	424	332	226	161	196	7
	Females.....	2,013	117	109	116	96	132	137	222	330	275	192	128	162	2
	Unknown.....	56	4	5	2	---	6	4	9	6	4	1	5	10	---
All Under 5.....	Total.....	7,810	409	430	493	455	486	547	830	1207	1036	741	557	613	12
	Males.....	4,296	211	233	293	277	252	304	460	658	568	389	304	340	8
	Females.....	3,461	193	191	198	178	228	239	361	543	464	351	248	263	4
	Unknown.....	59	5	6	2	---	6	5	9	6	4	1	5	10	---
5 to 10.....	Total.....	1,476	92	70	78	105	121	94	114	131	157	184	141	148	1
	Males.....	732	47	28	39	62	66	46	50	65	104	99	66	59	1
	Females.....	744	45	42	39	43	55	48	64	66	93	85	75	89	---
10 to 15.....	Total.....	822	39	35	45	65	66	49	71	72	100	105	98	73	4
	Males.....	400	19	16	22	31	25	30	39	35	52	60	44	34	3
	Females.....	422	20	19	23	34	41	19	32	37	48	55	54	39	1
15 to 20.....	Total.....	827	45	37	62	79	78	52	63	62	92	103	70	84	---
	Males.....	379	16	17	30	43	36	22	31	20	37	43	42	42	---
	Females.....	448	29	20	32	36	42	30	32	42	55	60	28	42	---
20 to 25.....	Total.....	968	50	60	76	75	72	53	69	86	120	120	101	94	1
	Males.....	483	24	32	38	42	33	21	20	42	65	56	58	51	1
	Females.....	485	26	28	38	33	39	32	40	44	55	64	43	43	---
25 to 30.....	Total.....	763	36	48	45	48	72	61	75	61	75	77	81	82	2
	Males.....	391	16	17	25	28	27	32	40	31	39	29	52	44	1
	Females.....	372	20	31	20	20	45	29	35	30	36	38	29	38	1
30 to 35.....	Total.....	616	36	33	50	54	52	40	57	54	61	54	65	56	4
	Males.....	289	20	12	22	27	25	15	26	31	24	16	39	26	3
	Females.....	327	16	21	28	27	27	25	31	23	37	35	26	30	1
35 to 40.....	Total.....	500	32	38	32	48	50	35	43	46	58	58	58	61	1
	Males.....	272	24	17	13	22	23	17	15	19	26	27	37	32	---
	Females.....	228	8	21	19	26	27	18	28	27	32	31	21	29	1
40 to 45.....	Total.....	512	41	23	41	41	44	43	28	56	43	43	47	61	1
	Males.....	257	21	11	22	17	23	20	15	25	26	23	21	33	---
	Females.....	255	20	12	19	24	21	23	13	31	17	20	26	28	1

TABLE V.—CONTINUED.—Deaths by Periods of Age, by Sex, by Months.

AGES IN PERIODS OF YEARS.		Sex.	YEAR, 1881.	MONTHS, 1881.												
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
45 to 50.	Total.....		492	33	33	39	41	56	35	32	49	49	45	35	44	1
	Males.....		254	14	18	26	28	27	16	17	27	18	18	19	23	1
	Females.....		238	19	15	13	13	29	19	15	22	31	27	16	19	
50 to 55.	Total.....		508	27	29	45	52	46	33	42	41	55	43	40	55	
	Males.....		299	12	21	31	37	23	16	25	29	28	25	24	28	
	Females.....		209	15	8	14	15	23	17	17	12	27	18	16	27	
55 to 60.	Total.....		569	21	39	41	52	44	26	40	43	55	49	47	48	4
	Males.....		273	13	21	22	25	19	15	27	22	29	24	26	26	4
	Females.....		236	8	18	19	27	25	11	13	21	26	25	21	22	
60 to 65.	Total.....		574	32	37	44	44	57	38	49	59	47	56	47	61	3
	Males.....		321	15	21	28	23	31	25	25	32	27	33	26	38	2
	Females.....		253	17	16	21	21	26	13	24	27	20	23	21	23	1
65 to 70.	Total.....		562	29	40	40	52	57	38	31	47	60	60	53	54	1
	Males.....		330	12	26	22	30	38	20	24	31	42	32	23	30	
	Females.....		232	17	14	18	22	19	18	7	16	18	28	30	24	1
70 to 75.	Total.....		649	48	41	53	65	59	46	52	60	57	64	44	57	3
	Males.....		396	27	25	28	39	36	27	27	45	35	39	30	30	2
	Females.....		259	21	16	25	26	23	19	25	15	22	25	14	27	1
75 to 80.	Total.....		581	33	40	43	55	35	31	33	65	71	54	54	65	1
	Males.....		330	25	23	26	26	24	15	25	31	29	35	30	40	1
	Females.....		251	8	17	17	29	11	16	8	34	42	19	24	26	
80 to 85.	Total.....		430	28	20	36	45	31	29	36	48	53	29	36	38	1
	Males.....		245	18	10	21	21	13	18	25	24	28	16	25	25	1
	Females.....		185	10	10	15	24	18	11	11	24	25	13	11	13	
85 to 90.	Total.....		192	6	8	18	20	8	11	14	15	28	23	19	23	
	Males.....		103	3	5	12	10	4	6	7	9	21	14	10	7	
	Females.....		85	3	3	6	10	4	5	7	6	7	9	9	16	
90 to 95.	Total.....		69	5	6	10	5	7	3	5	5	7	9	3	6	
	Males.....		38	2	3	4	4	2	2	4	2	4	4	3	4	
	Females.....		31	3	3	6	1	5	1	1	1	3	5		2	
95 to 100.	Total.....		18	1		1	2	1	1	2	3	1	2	1	3	
	Males.....		9						1	2	2		1	1	2	
	Females.....		9	1		1	2	1			1				1	
100 and over.	Total.....		8	1	1	1		1						1	2	
	Males.....		4	1		1		1						1		
	Females.....		4		1										2	
Unknown.	Total.....		285	21	10	22	24	14	11	24	38	35	22	19	19	26
	Males.....		163	12	6	12	11	9	6	17	18	24	11	14	11	12
	Females.....		116	9	3	9	13	5	5	7	16	11	11	5	8	14
	Unknown.		6		1	1					4					



TABLE V.—*Exhibiting, by Sex and by Age in Periods of Years, the Number of Persons Returned as having Died in Michigan during the Year, and in each Month of the Year 1881.*

AGES IN PERIODS OF YEARS.		SEX.	YEAR, 1881.	MONTHS, 1881.												
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
All Ages.....	Total.....		10,238	1065	1078	1315	1427	1457	1276	1701	2246	2301	1941	1617	1748	66
	Males.....		10,263	552	562	732	803	737	673	921	1198	1226	997	895	927	40
	Females.....		8,910	508	509	580	624	714	598	771	1038	1071	943	717	811	26
	Unknown.....		65	5	7	3	....	6	5	9	10	4	1	5	10	....
All Under 1.....	Total.....		4,655	249	266	298	253	284	322	527	760	611	419	289	368	9
	Males.....		2,586	128	152	180	157	146	181	296	424	332	226	161	196	7
	Females.....		2,013	117	109	116	96	132	137	222	330	275	192	123	162	2
	Unknown.....		56	4	5	2	....	6	4	9	6	4	1	5	10	....
All Under 5.....	Total.....		7,810	409	430	493	455	486	547	830	1207	1036	741	557	613	12
	Males.....		4,296	211	233	293	277	252	304	460	658	568	389	301	340	8
	Females.....		3,461	193	191	198	178	228	239	361	543	464	351	248	263	4
	Unknown.....		59	5	6	2	....	6	5	9	6	4	1	5	10	....
5 to 10.....	Total.....		1,476	92	70	78	105	121	94	114	131	197	184	141	148	1
	Males.....		732	47	28	39	62	66	46	50	65	104	99	66	59	1
	Females.....		744	45	42	39	43	55	48	64	66	93	85	75	89	....
10 to 15.....	Total.....		822	39	35	45	65	66	49	71	72	100	105	98	73	4
	Males.....		400	19	16	22	31	25	30	39	35	52	50	44	34	3
	Females.....		422	20	19	23	34	41	19	32	37	48	55	54	39	1
15 to 20.....	Total.....		827	45	37	62	79	78	52	63	62	92	103	70	84	....
	Males.....		379	16	17	30	43	36	22	31	20	37	43	42	41	....
	Females.....		448	29	20	32	36	42	30	32	42	55	60	28	42	....
20 to 25.....	Total.....		968	50	60	76	75	72	53	69	86	120	120	101	94	1
	Males.....		483	24	32	38	42	33	21	20	42	65	56	58	51	1
	Females.....		485	26	28	38	33	39	32	40	44	55	64	43	43	....
25 to 30.....	Total.....		763	36	48	45	48	72	61	75	61	75	77	81	82	2
	Males.....		391	16	17	25	28	27	32	40	31	39	39	52	44	1
	Females.....		372	20	31	20	20	45	29	35	30	36	38	29	38	1
30 to 35.....	Total.....		616	36	33	50	54	52	40	57	54	61	54	65	50	4
	Males.....		289	20	12	22	27	25	15	26	31	24	19	39	26	3
	Females.....		327	16	21	28	27	27	25	31	23	37	35	26	30	1
35 to 40.....	Total.....		560	32	38	32	48	50	35	43	46	58	58	58	61	1
	Males.....		272	24	17	13	22	23	17	15	19	26	27	37	32	....
	.....		288	8	21	19	26	27	18	28	27	32	31	21	29	1
	.....		512	41	23	41	41	41	43	28	56	43	43	47	61	1
	.....		257	21	11	22	17	23	20	15	25	26	23	21	33	....
40 to 45.....	.....		55	20	12	19	24	21	23	13	31	17	20	26	28	1

TABLE V.—CONTINUED.—Deaths by Periods of Age, by Sex, by Months.

AGES IN PERIODS OF YEARS.		SEX.	YEAR, 1881.	MONTHS, 1881.												
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
45 to 50.	Total.....		492	33	33	39	41	56	35	32	49	49	45	35	44	1
	Males.....		254	14	18	26	28	27	16	17	27	18	18	19	23	1
	Females.....		238	19	15	13	13	29	19	15	22	31	27	16	19	...
50 to 55.	Total.....		508	27	29	45	52	46	33	42	41	55	43	40	55	...
	Males.....		299	12	21	31	37	23	16	25	29	28	25	24	28	...
	Females.....		209	15	8	14	15	23	17	17	12	27	18	16	27	...
55 to 60.	Total.....		509	21	39	41	52	41	26	40	43	55	49	47	48	4
	Males.....		273	13	21	22	25	19	15	27	22	29	24	26	26	4
	Females.....		236	8	18	19	27	23	11	13	21	26	25	21	22	...
60 to 65.	Total.....		574	32	37	44	44	57	38	49	59	47	56	47	61	3
	Males.....		321	15	21	28	23	31	25	25	32	27	33	26	38	2
	Females.....		253	17	16	21	21	26	13	24	27	20	23	21	23	1
65 to 70.	Total.....		562	29	40	40	52	57	38	31	47	60	60	53	54	1
	Males.....		330	12	26	22	30	38	20	24	31	42	32	23	30	...
	Females.....		232	17	14	18	22	19	18	7	16	18	28	30	24	1
70 to 75.	Total.....		649	48	41	53	65	59	46	52	60	57	64	44	57	3
	Males.....		390	27	25	28	39	36	27	27	45	35	39	30	30	2
	Females.....		259	21	16	25	26	23	19	25	15	22	25	14	27	1
75 to 80.	Total.....		581	33	40	43	55	35	31	33	65	71	54	54	63	1
	Males.....		330	25	23	26	26	24	15	25	31	29	35	30	40	1
	Females.....		251	8	17	17	29	11	16	8	34	42	19	24	26	...
80 to 85.	Total.....		430	28	20	36	45	31	29	36	48	53	29	36	38	1
	Males.....		245	18	10	21	21	13	18	25	24	28	16	25	25	1
	Females.....		185	10	10	15	24	18	11	11	24	25	13	11	13	...
85 to 90.	Total.....		193	6	8	18	20	8	11	14	15	28	23	19	23	...
	Males.....		108	3	5	12	10	4	6	7	9	21	14	10	7	...
	Females.....		85	3	3	6	10	4	5	7	6	7	9	9	16	...
90 to 95.	Total.....		69	5	6	10	5	7	3	5	3	7	9	3	6	...
	Males.....		38	2	3	4	4	2	2	4	2	4	4	3	4	...
	Females.....		31	3	3	6	1	5	1	1	1	3	5	...	2	...
95 to 100.	Total.....		18	1	...	1	2	1	1	2	3	1	2	1	3	...
	Males.....		9	...	...	...	...	...	1	2	2	...	1	1	2	...
	Females.....		9	1	...	1	2	1	...	...	1	1	1	...	1	...
100 and over.	Total.....		8	1	1	1	...	1	...	...	...	1	...	1	2	...
	Males.....		4	1	...	1	...	1	...	...	...	...	...	1	...	...
	Females.....		4	...	1	...	...	...	...	...	...	1	...	...	2	...
Unknown.	Total.....		285	21	10	22	24	14	11	24	38	33	22	19	19	90
	Males.....		163	12	6	12	11	9	6	17	18	24	11	14	11	12
	Females.....		116	9	3	9	13	5	5	7	16	11	11	5	8	14
	Unknown.....		6	...	1	1	...	...	...	...	4	...	...	...	...	...



TABLE VI.—CONTINUED.—*Deaths by Ages, by Sex, by Months.*

AGES IN YEARS.	SEX.	YEAR, 1881.	MONTHS, 1881.												
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
11.....	Total.....	186	6	9	10	10	18	14	14	17	14	22	29	17	.....
	Males.....	93	3	5	4	5	10	8	8	8	7	10	16	9	.....
	Females.....	87	3	4	6	5	8	6	6	9	7	12	13	8	.....
12.....	Total.....	157	7	8	9	11	9	10	10	16	27	20	13	16	1
	Males.....	84	4	3	5	6	4	8	9	9	12	8	6	9	1
	Females.....	73	3	5	4	5	5	2	1	7	15	12	7	7	.....
13.....	Total.....	150	7	5	12	11	15	5	12	11	15	20	25	11	1
	Males.....	70	3	3	5	5	5	3	5	4	7	10	12	7	1
	Females.....	80	4	2	7	6	10	2	7	7	8	10	13	4	.....
14.....	Total.....	158	7	4	11	18	11	7	13	16	18	20	18	13	2
	Males.....	70	5	1	7	8	2	5	7	9	7	8	6	4	1
	Females.....	88	2	3	4	10	9	2	6	7	11	12	12	9	1
15.....	Total.....	117	12	2	16	11	6	6	8	5	11	20	11	9	.....
	Males.....	47	4	2	8	7	3	2	4	1	4	5	6	1	.....
	Females.....	70	8	.....	8	4	3	4	4	4	7	15	5	8	.....
16.....	Total.....	168	11	14	11	11	17	10	14	13	26	18	8	15	.....
	Males.....	65	3	5	6	8	6	4	4	3	12	6	3	5	.....
	Females.....	103	8	9	5	3	11	6	10	10	14	12	5	10	.....
17.....	Total.....	159	7	7	7	15	18	12	13	19	15	16	12	18	.....
	Males.....	72	5	2	4	8	9	6	5	8	5	5	7	8	.....
	Females.....	87	2	5	3	7	9	6	8	11	10	11	5	10	.....
18.....	Total.....	165	9	4	13	21	20	10	11	11	16	15	18	17	.....
	Males.....	86	2	2	7	10	11	3	5	4	7	7	12	13	.....
	Females.....	79	7	2	6	11	9	7	3	7	9	8	6	4	.....
19.....	Total.....	218	6	10	15	21	17	14	17	14	24	34	21	25	.....
	Males.....	109	2	6	5	10	7	7	10	4	9	20	14	15	.....
	Females.....	109	4	4	10	11	10	7	7	10	15	14	7	10	.....
20.....	Total.....	199	10	13	17	12	11	8	17	11	31	26	20	23	.....
	Males.....	97	7	3	6	9	6	3	5	1	21	13	13	10	.....
	Females.....	102	3	10	11	3	5	5	12	10	10	13	7	13	.....
21.....	Total.....	179	9	7	16	16	11	11	9	18	17	24	27	13	1
	Males.....	85	3	4	8	10	4	5	.....	7	7	11	16	9	1
	Females.....	94	6	3	8	6	7	6	9	11	10	13	11	4	.....
22.....	Total.....	212	13	15	16	21	20	11	10	21	25	24	16	20	.....
	Males.....	107	5	9	9	10	6	5	5	11	11	12	11	13	.....
	Females.....	105	8	6	7	11	14	6	5	10	14	12	5	7	.....

TABLE VI.—CONTINUED.—*Deaths by Ages, by Sex, by Months.*

AGES IN YEARS.		SEX.	YEAR, 1881.	MONTHS, 1881.												
				Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
10-12	Total	154	5	3	9	11	9	11	19	36	25	12	8	6	---	
	Males	91	3	2	5	7	2	7	11	25	15	5	6	3	---	
	Females	63	2	1	4	4	7	4	8	11	10	7	2	3	---	
11-12	Total	192	4	13	14	5	11	5	32	39	27	22	7	13	1	
	Males	99	1	5	9	4	3	2	21	21	13	11	3	6	---	
	Females	93	3	8	5	1	8	3	11	18	14	11	4	6	1	
1	Total	1,372	64	54	84	69	69	90	156	229	246	136	88	65	2	
	Males	756	33	27	48	46	36	45	84	117	142	80	50	47	1	
	Females	615	31	27	36	23	33	44	72	112	104	56	38	33	1	
	Unknown	1	---	---	---	---	---	1	---	---	---	---	---	---	---	
2	Total	781	41	43	59	53	53	67	61	116	79	72	65	67	---	
	Males	407	14	27	31	37	26	33	32	64	45	30	29	30	---	
	Females	373	27	20	28	16	27	34	29	52	34	42	36	28	---	
	Unknown	1	---	1	---	---	---	---	---	---	---	---	---	---	---	
3	Total	572	28	35	32	43	45	47	53	64	64	52	56	53	1	
	Males	314	18	17	23	24	25	30	29	35	29	20	34	31	---	
	Females	257	9	18	10	19	20	17	24	29	35	32	22	21	1	
	Unknown	1	1	---	---	---	---	---	---	---	---	---	---	---	---	
4	Total	436	27	27	20	37	35	21	33	38	36	62	59	41	---	
	Males	233	18	10	12	13	19	14	19	18	20	33	30	27	---	
	Females	203	9	17	8	24	16	7	14	20	16	29	29	14	---	
5	Total	398	27	20	20	30	37	21	32	34	50	47	45	35	---	
	Males	196	10	9	13	16	18	7	13	20	25	25	21	19	---	
	Females	202	17	11	7	14	19	14	19	14	25	22	24	16	---	
6	Total	303	20	12	22	26	20	27	19	24	39	27	30	37	---	
	Males	143	10	4	9	16	10	12	6	11	21	14	15	15	---	
	Females	160	10	10	13	10	10	15	13	13	18	13	15	22	---	
7	Total	309	17	13	16	11	30	17	25	39	44	42	29	25	1	
	Males	158	10	6	8	7	18	10	15	21	21	24	9	8	1	
	Females	151	7	7	8	4	12	7	10	18	23	18	20	17	---	
8	Total	249	17	13	14	20	17	17	15	21	34	33	22	26	---	
	Males	128	11	4	7	13	10	10	5	8	19	18	13	10	---	
	Females	121	6	9	7	7	7	7	10	13	15	15	9	16	---	
9	Total	217	11	12	6	18	17	12	23	13	30	35	15	25	---	
	Males	107	6	5	2	10	10	7	11	5	18	18	8	7	---	
	Females	110	5	7	4	8	7	5	12	8	12	17	7	18	---	
10	Total	177	12	9	3	15	13	13	22	12	26	23	13	16	---	
	Males	83	4	4	1	7	4	6	10	5	19	14	4	5	---	
	Females	94	8	5	2	8	9	7	12	7	7	9	9	11	---	



## DEATHS—BY AGES, BY SEX, BY MONTHS.

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TABLE VI.—CONTINUED.—*Deaths by Ages, by Sex, by Months.*

AGES IN YEARS.	SEX.	YEAR, 1881.	MONTHS, 1881.												
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
11.....	Total.....	180	6	9	10	10	18	14	14	17	14	22	29	17	---
	Males.....	93	3	5	4	5	10	8	8	8	7	10	16	9	---
	Females..	87	3	4	6	5	8	6	6	9	7	12	13	8	---
12.....	Total.....	157	7	8	9	11	9	10	10	16	27	20	13	16	1
	Males.....	84	4	3	5	6	4	8	9	9	12	8	6	9	1
	Females..	73	3	5	4	5	5	2	1	7	15	12	7	7	---
13.....	Total.....	150	7	5	12	11	15	5	12	11	15	20	25	11	1
	Males.....	70	3	3	5	5	5	3	5	4	7	10	12	7	1
	Females..	80	4	2	7	6	10	2	7	7	8	10	13	4	---
14.....	Total.....	158	7	4	11	18	11	7	13	16	18	20	18	13	2
	Males.....	70	5	1	7	8	2	5	7	9	7	8	6	4	1
	Females..	88	2	3	4	10	9	2	6	7	11	12	12	9	1
15.....	Total.....	117	12	2	16	11	6	6	8	5	11	20	11	9	---
	Males.....	47	4	2	8	7	3	2	4	1	4	5	6	1	---
	Females..	70	8	---	8	4	3	4	4	4	7	15	5	8	---
16.....	Total.....	168	11	14	11	11	17	10	14	13	26	18	8	15	---
	Males.....	65	3	5	6	8	6	4	4	3	12	6	3	5	---
	Females..	103	8	9	5	3	11	6	10	10	14	12	5	10	---
17.....	Total.....	159	7	7	7	15	18	12	13	19	15	16	12	18	---
	Males.....	72	5	2	4	8	9	6	5	8	5	5	7	8	---
	Females..	87	2	5	3	7	9	6	8	11	10	11	5	10	---
18.....	Total.....	165	9	4	13	21	20	10	11	11	16	15	18	17	---
	Males.....	86	2	2	7	10	11	3	5	4	7	7	12	13	---
	Females..	79	7	2	6	11	9	7	3	7	9	8	6	4	---
19.....	Total.....	218	6	10	15	21	17	14	17	14	24	34	21	25	---
	Males.....	109	2	6	5	10	7	7	10	4	9	20	14	15	---
	Females..	109	4	4	10	11	10	7	7	10	15	14	7	10	---
20.....	Total.....	190	10	13	17	12	11	8	17	11	31	26	20	23	---
	Males.....	97	7	3	6	9	6	3	5	1	21	13	13	10	---
	Females..	102	3	10	11	3	5	5	12	10	10	13	7	13	---
21.....	Total.....	179	9	7	16	16	11	11	9	18	17	24	27	13	1
	Males.....	85	3	4	8	10	4	5	---	7	7	11	16	9	1
	Females..	94	6	3	8	6	7	6	9	11	10	14	11	4	---
22.....	Total.....	212	13	15	16	21	20	11	10	21	25	24	16	20	---
	Males.....	107	5	9	9	10	6	5	5	11	11	12	11	13	---
	Females..	105	8	6	7	11	14	6	5	10	14	12	5	7	---

EXHIBIT E.—Deaths in Michigan during the Year 1881, as Returned, as Corrected for Omissions in Enumerating, and as thus Corrected, Equalized to Months of uniform length of 30.44 days each.

	TOTAL.	MONTHS, 1881.											
		Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Deaths as returned by Registration Officers.....	19,172	1,065	1,078	1,315	1,427	1,457	1,276	1,701	2,246	2,301	1,941	1,617	1,743
Per cent. of deaths to be added for correction for time elapsing before enumeration.....	68.84	64.54	60.24	55.94	51.64	47.34	43.04	38.74	34.44	30.14	25.84	21.54	
Number of deaths to be added for above correction.....	8,149	733	686	792	798	752	604	732	870	792	553	418	377
Deaths, if enumerated in month of occurrence.....	27,321	1,798	1,774	2,107	2,225	2,209	1,880	2,433	3,116	3,093	2,526	2,035	2,123
Days and hundredths by which the months should be increased or diminished to equalize them to months of uniform length.....	—56	+2.44	—56	+44	—56	+44	—56	—56	—56	+44	—56	+44	—56
Number by which the deaths should be increased or diminished to equalize them to months of uniform length.....	—3	—32	+155	—38	+33	—40	+28	—44	—56	+43	—46	+30	—38
Deaths, corrected and equalized to months of uniform length.....	27,318	1,766	1,929	2,069	2,258	2,169	1,908	2,389	3,060	3,138	2,480	2,065	2,087

\* Excluding 68 in unknown month.

#### AGES OF PERSONS WHO DIED IN MICHIGAN IN 1881.

Table IV. shows the number and per cent. of deaths in Michigan in 1881, according to age and sex. Of the deaths at all ages, there were about 7 per cent. more males than females. Under five years of age the per cent. of deaths was considerably greater among the males. Between the ages of five and twenty-five years there was an excess of deaths among the females, being greatest between the ages of fifteen and twenty years, a fact that has considerable significance. The greatest number of deaths occurred among infants under one year of age. Further details upon this subject are shown in Exhibit F. The number and per cent. of deaths at different periods of life that occurred during each month in 1881 are shown in Exhibit G.

## DEATHS—BY AGES, BY SEX, BY MONTHS.

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TABLE VI.—CONTINUED.—*Deaths by Ages, by Sex, by Months.*

AGES IN YEARS.	SEX.	YEAR, 1881.	MONTHS, 1881.												
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
35	Total.....	132	10	12	10	10	11	9	8	14	10	8	14	16	---
	Males.....	67	7	10	4	4	3	5	2	6	5	4	11	6	---
	Females..	65	3	2	6	6	8	4	6	8	5	4	3	10	---
36	Total.....	125	8	6	5	12	11	6	7	13	23	14	12	8	---
	Males.....	60	6	1	1	5	5	3	5	5	11	8	5	5	---
	Females..	65	2	5	4	7	6	3	2	8	12	6	7	3	---
37	Total.....	116	3	8	5	9	10	8	10	8	12	14	17	13	1
	Males.....	59	2	2	2	5	8	6	3	2	5	8	12	6	---
	Females..	57	1	4	3	4	4	2	7	6	7	6	5	7	1
38	Total.....	99	5	8	8	11	8	7	10	6	3	11	7	15	---
	Males.....	43	5	1	5	5	2	1	2	3	---	5	3	11	---
	Females..	56	---	7	3	6	6	6	8	3	3	6	4	4	---
39	Total.....	88	6	6	4	6	10	5	8	5	10	11	8	9	---
	Males.....	43	4	3	1	3	7	2	3	3	5	2	6	4	---
	Females..	45	2	3	3	3	3	3	5	2	5	9	2	5	---
40	Total.....	130	6	6	9	9	10	14	5	12	16	12	14	17	---
	Males.....	63	1	1	5	3	2	7	1	6	13	8	8	8	---
	Females..	67	5	5	4	6	8	7	4	6	3	4	6	9	---
41	Total.....	98	9	3	6	12	8	10	7	11	3	5	12	12	---
	Males.....	54	4	2	5	6	5	4	5	6	1	5	3	8	---
	Females..	44	5	1	1	6	3	6	2	5	2	---	9	4	---
42	Total.....	114	8	5	11	4	11	11	6	13	10	9	11	14	1
	Males.....	54	4	2	7	1	7	4	4	3	6	2	7	7	---
	Females..	60	4	3	4	3	4	7	2	10	4	7	4	7	1
43	Total.....	90	11	7	5	6	9	5	7	12	6	5	6	11	---
	Males.....	49	8	6	1	2	5	3	4	5	4	2	1	8	---
	Females..	41	3	1	4	4	4	2	3	7	2	3	5	3	---
44	Total.....	80	7	2	10	10	6	3	3	8	8	12	4	7	---
	Males.....	37	4	---	4	3	4	2	1	5	2	6	2	2	---
	Females..	43	3	2	6	5	2	1	2	3	6	6	2	5	---
45	Total.....	118	10	8	11	4	13	8	5	8	13	14	7	16	1
	Males.....	66	5	4	6	3	4	4	3	4	9	9	5	9	1
	Females..	52	5	4	5	1	9	4	2	4	4	5	2	7	---
46	Total.....	80	7	4	8	9	11	5	2	8	9	4	6	7	---
	Males.....	44	1	4	6	9	5	1	1	5	4	2	2	4	---
	Females..	36	6	---	2	---	6	4	1	3	5	2	4	3	---

TABLE VI.—CONTINUED.—*Deaths by Ages, by Sex, by Months.*

AGES IN YEARS.	SEX.	YEAR, 1881.	MONTHS, 1881.												
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
71.....	Total.....	112	4	7	10	6	9	3	14	13	9	10	14	12	1
	Males.....	63	1	3	4	4	4	2	7	9	9	5	10	4	1
	Females..	49	3	4	6	2	5	1	7	4	-----	5	4	8	-----
72.....	Total.....	120	12	5	12	13	8	8	7	18	16	8	2	10	1
	Males.....	67	6	4	9	8	3	4	2	13	9	3	1	5	-----
	Females..	53	6	1	3	5	5	4	5	5	7	5	1	5	1
73.....	Total.....	148	9	13	15	21	11	11	9	8	11	17	13	10	-----
	Males.....	87	5	9	9	13	5	7	5	6	5	11	7	5	-----
	Females..	61	4	4	6	8	6	4	4	2	6	6	6	5	-----
74.....	Total.....	123	9	7	6	14	15	11	13	11	7	11	7	12	-----
	Males.....	76	7	3	3	8	10	4	9	8	5	7	6	6	-----
	Females..	47	2	4	3	6	5	7	4	3	2	4	1	6	-----
75.....	Total.....	128	8	5	12	12	11	5	12	11	10	14	11	17	-----
	Males.....	70	8	1	6	2	7	-----	9	5	5	10	6	11	-----
	Females..	58	-----	4	6	10	4	5	3	6	5	4	5	6	-----
76.....	Total.....	134	6	7	10	15	9	6	7	15	18	13	9	19	-----
	Males.....	73	4	4	6	7	6	3	5	7	8	10	5	8	-----
	Females..	61	2	3	4	8	3	3	2	8	10	3	4	11	-----
77.....	Total.....	113	13	13	6	13	6	5	3	9	14	12	11	7	1
	Males.....	63	8	9	3	7	4	3	2	2	4	8	7	5	1
	Females..	50	5	4	3	6	2	2	1	7	10	4	4	2	-----
78.....	Total.....	107	3	5	9	11	3	7	5	17	14	8	12	13	-----
	Males.....	63	2	4	6	8	3	3	3	7	7	4	8	8	-----
	Females..	44	1	1	3	3	-----	4	2	10	7	4	4	5	-----
79.....	Total.....	99	3	10	6	4	6	8	6	13	15	7	11	10	-----
	Males.....	61	3	5	5	2	4	6	6	10	5	3	4	8	-----
	Females..	38	-----	5	1	2	2	2	-----	3	10	4	7	2	-----
80.....	Total.....	96	8	4	9	12	6	4	12	8	7	7	11	8	-----
	Males.....	55	4	3	5	8	3	1	6	1	5	4	7	6	-----
	Females..	41	4	1	4	4	3	3	4	7	2	3	4	2	-----
81.....	Total.....	120	9	5	10	11	10	9	12	13	17	6	9	8	1
	Males.....	64	6	2	6	5	2	5	9	7	6	2	6	7	1
	Females..	56	3	3	4	6	8	4	3	6	11	4	3	1	-----
82.....	Total.....	82	3	5	5	8	3	6	6	12	8	9	8	9	-----
	Males.....	48	1	3	4	4	1	5	4	8	2	5	6	5	-----
	Females..	34	2	2	1	4	2	1	2	4	6	4	2	4	-----



TABLE VI.—CONTINUED.—*Deaths by Ages, by Sex, by Months.*

AGES IN YEARS.	SEX.	YEAR, 1881.	MONTHS, 1881.												
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
59	Total.....	104	7	8	11	13	5	6	9	10	6	8	11	9	1
	Males.....	58	5	5	4	7	3	4	3	5	5	5	8	3	1
	Females..	46	2	3	7	6	2	2	6	5	1	3	3	6	---
60	Total.....	136	8	9	11	9	13	13	11	16	14	9	10	12	1
	Males.....	79	4	7	6	4	5	13	4	11	9	6	6	3	1
	Females..	57	4	2	5	5	8	---	7	5	5	3	4	9	---
61	Total.....	101	6	7	8	6	13	10	6	7	10	11	7	10	---
	Males.....	62	4	3	4	2	7	3	3	4	7	9	7	9	---
	Females..	39	2	4	4	4	6	7	3	3	3	2	---	1	---
62	Total.....	132	9	7	14	10	15	6	11	13	16	12	7	12	---
	Males.....	68	4	5	9	6	8	4	8	4	6	7	---	7	---
	Females..	64	5	2	5	4	7	2	3	9	10	5	7	5	---
63	Total.....	123	5	8	9	13	7	4	11	11	6	19	14	15	1
	Males.....	64	---	3	4	7	4	1	5	7	4	10	9	9	1
	Females..	59	5	5	5	6	3	3	6	4	2	9	5	6	---
64	Total.....	82	4	6	2	6	9	5	10	12	1	5	9	12	1
	Males.....	48	3	3	---	4	7	4	5	6	1	1	4	10	---
	Females..	34	1	3	2	2	2	1	5	6	---	4	5	2	1
65	Total.....	116	8	7	12	9	12	8	8	8	6	13	13	11	1
	Males.....	73	4	6	8	6	8	5	5	3	6	7	7	8	---
	Females..	43	4	1	4	3	4	3	3	5	---	6	6	3	1
66	Total.....	102	5	12	9	15	7	5	4	8	15	10	5	7	---
	Males.....	60	1	9	6	8	5	4	3	5	9	4	2	4	---
	Females..	42	4	3	3	7	2	1	1	3	6	6	3	3	---
67	Total.....	112	5	4	7	6	20	10	6	15	11	10	8	10	---
	Males.....	60	1	2	5	4	13	3	6	11	9	5	1	6	---
	Females..	46	4	2	2	2	7	7	---	4	2	5	7	4	---
68	Total.....	117	4	7	6	10	10	6	7	7	13	15	17	15	---
	Males.....	65	2	3	1	4	8	3	5	5	8	9	9	8	---
	Females..	52	2	4	5	6	2	3	2	2	5	6	8	7	---
69	Total.....	115	7	10	6	12	8	9	6	9	15	12	10	11	---
	Males.....	66	4	6	2	8	4	5	5	7	10	7	4	4	---
	Females..	49	3	4	4	4	4	4	1	2	5	5	6	7	---
70	Total.....	146	14	9	10	11	16	13	9	10	14	18	8	13	1
	Males.....	97	8	6	3	6	14	10	4	9	7	13	6	10	1
	Females..	49	6	3	7	5	2	3	5	1	7	5	2	3	---

TABLE VI.—CONTINUED.—*Deaths by Ages, by Sex, by Months.*

AGES IN YEARS.	SEX.	YEAR, 1881.	MONTHS, 1881.												
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
71.....	Total.....	112	4	7	10	6	9	3	14	13	9	10	14	12	1
	Males.....	63	1	3	4	4	4	2	7	9	9	5	10	4	1
	Females..	49	3	4	6	2	5	1	7	4	-----	5	4	8	---
72.....	Total.....	120	12	5	12	13	8	8	7	18	16	8	2	10	1
	Males.....	57	6	4	9	8	3	4	2	13	9	3	1	5	---
	Females..	53	6	1	3	5	5	4	5	5	7	5	1	5	1
73.....	Total.....	148	9	13	15	21	11	11	9	8	11	17	13	10	---
	Males.....	87	5	9	9	13	5	7	5	6	5	11	7	5	---
	Females..	61	4	4	6	8	6	4	4	2	6	6	6	5	---
74.....	Total.....	123	9	7	6	14	15	11	13	11	7	11	7	12	---
	Males.....	76	7	3	3	8	10	4	9	8	5	7	6	6	---
	Females..	47	2	4	3	6	5	7	4	3	2	4	1	6	---
75.....	Total.....	128	8	5	12	12	11	5	12	11	10	14	11	17	---
	Males.....	70	8	1	6	2	7	-----	9	5	5	10	6	11	---
	Females..	58	---	4	6	10	4	5	3	6	5	4	5	6	---
76.....	Total.....	134	6	7	10	15	9	6	7	15	18	13	9	19	---
	Males.....	73	4	4	6	7	6	3	5	7	8	10	5	8	---
	Females..	61	2	3	4	8	3	3	2	8	10	3	4	11	---
77.....	Total.....	113	13	13	6	13	6	5	3	9	14	12	11	7	1
	Males.....	63	8	9	3	7	4	3	2	2	4	8	7	5	1
	Females..	50	5	4	3	6	2	2	1	7	10	4	4	2	---
78.....	Total.....	107	3	5	9	11	3	7	5	17	14	8	12	13	---
	Males.....	63	2	4	6	8	3	3	3	7	7	4	8	8	---
	Females..	44	1	1	3	3	-----	4	2	10	7	4	4	5	---
79.....	Total.....	99	3	10	6	4	6	8	6	13	15	7	11	10	---
	Males.....	61	3	5	5	2	4	6	6	10	5	3	4	8	---
	Females..	38	---	5	1	2	2	2	-----	3	10	4	7	2	---
80.....	Total.....	96	8	4	9	12	6	4	12	8	7	7	11	8	---
	Males.....	55	4	3	5	8	3	1	8	1	5	4	7	6	---
	Females..	41	4	1	4	4	3	3	4	7	2	3	4	2	---
81.....	Total.....	120	9	5	10	11	10	9	12	13	17	6	9	8	1
	Males.....	64	6	2	6	5	2	5	9	7	6	2	6	7	1
	Females..	56	3	3	4	6	8	4	3	6	11	4	3	1	---
82.....	Total.....	82	3	5	5	8	3	6	6	12	8	9	8	9	---
	Males.....	48	1	3	4	4	1	5	4	8	2	5	6	5	---
	Females..	34	2	2	1	4	2	1	2	4	6	4	2	4	---

TABLE VI.—CONTINUED.—*Deaths by Ages, by Sex, by Months.*

AGES IN YEARS.	SEX.	YEAR, 1881.	MONTHS, 1881.												
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
83	Total.....	73	6	4	7	6	7	4	5	10	10	1	5	8	---
	Males.....	44	5	1	2	2	4	2	3	6	8	1	5	5	---
	Females..	29	1	3	5	4	3	2	2	4	2	---	---	3	---
84	Total.....	59	2	2	5	8	5	6	1	5	11	6	3	5	---
	Males.....	34	2	1	4	2	3	5	1	2	7	4	1	2	---
	Females..	25	---	1	1	6	2	1	---	3	4	2	2	3	---
85	Total.....	49	1	3	4	2	3	1	4	6	5	7	6	7	---
	Males.....	33	---	2	3	2	2	1	3	4	4	5	4	3	---
	Females..	16	1	1	1	---	1	---	1	2	1	2	2	4	---
86	Total.....	48	1	---	5	7	2	4	5	3	7	4	5	5	---
	Males.....	25	---	---	5	4	1	3	2	2	4	2	1	1	---
	Females..	23	1	---	---	3	1	1	3	1	3	2	4	4	---
87	Total.....	36	1	1	1	5	1	1	3	3	9	5	3	3	---
	Males.....	16	1	1	---	---	---	---	2	2	6	3	1	---	---
	Females..	20	---	---	1	5	1	1	1	1	3	2	2	3	---
88	Total.....	36	1	3	5	5	---	5	---	---	6	4	2	5	---
	Males.....	22	---	1	4	3	---	2	---	---	6	2	2	2	---
	Females..	14	1	2	1	2	---	3	---	---	---	2	---	3	---
89	Total.....	24	2	1	3	1	2	---	2	3	1	3	3	3	---
	Males.....	12	2	1	---	1	1	---	---	1	1	2	2	1	---
	Females..	12	---	---	3	---	1	---	2	2	---	1	1	2	---
90	Total.....	21	1	2	3	2	1	2	1	---	2	3	1	3	---
	Males.....	9	---	---	---	1	---	1	1	---	1	1	1	3	---
	Females..	12	1	2	3	1	1	1	---	---	1	2	---	---	---
91	Total.....	18	1	1	5	2	1	1	1	---	2	1	2	1	---
	Males.....	13	---	1	2	2	1	1	1	---	2	---	2	1	---
	Females..	5	1	---	3	---	---	---	---	---	---	1	---	---	---
92	Total.....	15	2	1	1	---	2	---	3	---	2	3	---	1	---
	Males.....	10	2	1	1	---	1	---	2	---	1	2	---	---	---
	Females..	5	---	---	---	---	1	---	1	---	1	1	---	1	---
93	Total.....	9	1	1	---	---	2	---	---	3	1	1	---	---	---
	Males.....	3	---	1	---	---	---	---	---	2	---	---	---	---	---
	Females..	6	1	---	---	---	2	---	---	1	1	1	---	---	---
94	Total.....	6	---	1	1	1	1	---	---	---	---	1	---	1	---
	Males.....	3	---	---	1	1	---	---	---	---	---	1	---	---	---
	Females..	3	---	1	---	---	1	---	---	---	---	---	---	1	---

TABLE VIII.—*Exhibiting, by Sex, the Number of Children under One Year of Age Returned as having Died in Michigan during the Year 1881; distinguishing the Months in which they Died, their Age in Months at Death, the Months in which they were Born, and whether Born in the Year of Death or in the Previous Year.\**

Months in which Births and Deaths Occurred.	NUMBER BORN IN EACH MONTH OF YEAR OF DEATH.												NUMBER OF CHILDREN WHO DIED AT EACH AGE IN MONTHS.												Number Born in each Month of Year Previ- out to Year of Death.				DEATHS BY MONTH.				ALL AGED ON THE ONE YEAR.												
	Year.	Total.	Sex.	No. of each Sex.																																									
					-1.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.																													
January.....	1881.	338	Males... Females...	169 169	70 52	7 14	8 11	8 7	10 7	2 6	6 7	4 3	6 2	3 3	3 2	1 3																													
February.....		377	Males... Females...	208 169	76 62	16 8	6 7	8 6	10 3	16 5	6 2	4 1	5 2	2 1	5 1	8 3	4																												
March.....		389	Males... Females...	219 170	93 56	17 15	10 4	10 7	7 4	5 2	5 4	7 6	6 4	5 5	9 4	10	18																												
April.....		381	Males... Females...	223 148	92 44	10 8	6 7	5 7	5 6	6 3	4 4	2 3	8 6	4 4	7 4	14	23																												
May.....		397	Males... Females...	206 161	72 56	12 9	18 13	9 8	7 4	5 6	3 5	2 5	7 5	6 7	2 3	20	29																												
June.....		338	Males... Females...	189 149	84 69	12 15	16 11	9 12	7 8	12 8	9 1	5 2	6 7	4 3	2 1	21	42																												
July.....		304	Males... Females...	176 128	86 54	34 18	25 15	22 23	20 24	14 15	21 17	10 12	13 11	19 8	21 11	30	59																												
August.....		312	Males... Females...	186 126	115 77	33 22	25 29	46 28	34 19	29 21	32 21	25 23	18 29	25 11	21 18	67	106																												
September..		271	Males... Females...	142 129	89 70	33 27	19 23	23 25	25 22	34 21	16 17	29 17	15 14	17 10	13 11	63	121																												
October.....		203	Males... Females...	114 89	85 68	30 21	16 12	15 9	13 13	14 15	12 5	10 8	9 13	5 7	11 11	94	155																												
November...		139	Males... Females...	83 56	71 48	12 15	14 11	13 7	13 6	3 5	7 3	6 9	8 1	3 2	6 4	94	178																												
December...		201	Males... Females...	110 91	110 91	12 6	17 6	8 19	8 3	9 5	7 6	5 4	6 4	3 7	6 3	102	215																												
																			1881.				1880.				1881.				1880.				1881.				1880.						
																			Sex. Total.				Sex. Total.				Sex. Total.				Sex. Total.				Sex. Total.				Sex. Total.						
																			70 122 245				58 123 65				60 99 169				152 261				128 245				117 217						
																			92 162 261				60 99 169				152 261				128 245				117 217										
																			190 195 296				60 101 41				186 296				186 296				186 296										
																			113 179 253				44 74 36				157 253				146 278				132 238										
																			118 208 318				28 70 42				146 278				132 238				181 318										
																			144 256 388				37 62 137				181 318				132 238				206 318										
																			335 587 764				89 167 78				424 764				330 607				332 607										
																			210 384 418				16 34 18				224 418				192 418				161 244										
																			158 277 353				8 7 4				161 244				125 388				196 388										
																			196 353 692				162 353				196 388				125 388				196 388										



DEATHS BY AGE.		1881.		1880.		All aged under One Year.									
Of those Born in Year of Death.		Males...	Females...	Total...	Males...	Females...	Total...								
Of those Born in Prev. or Year.	3,640	2,003	1,043	221	127	152	131	115	95	70	42	14	9	6	
		1,573	737	177	127	144	108	89	71	57	36	21	5	6	
		3,640	1780	398	294	296	236	204	166	137	78	35	14	12	
All aged under One Year.		Males...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
		Females...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
		Total...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	
												2,003 1,575			
														3,640	
														514 436	
														950	
														2,579 2,011	
														4,590	

\* Excluding 7 males and 2 females, month of death unknown; and 56 deaths of persons of unknown sex,—65 in all.

#### BIRTH-MONTHS MOST FAVORABLE TO THE LIFE OF THE CHILD.

Exhibit 3 contains data concerning the number of children who were born in each month of the year 1880, and who died in 1880 and 1881 aged under one year. The greatest number of deaths under one year of age, according to the returns, occurred among children born in the month of December. The least mortality was among those born in the month of January.

#### MONTHS OF GREATEST DANGER TO LIFE OF CHILDREN AGED UNDER ONE YEAR.

While, according to the returns, the greatest danger to life at all ages was, in 1881, in the month of September, the greatest mortality among children under one year of age was in the month of August; the months of July, August, and September being three consecutive months of great danger. This is a fact of painful repetition year after year, and one in which individual observation verifies statistics. When we consider the probabilities of life being so much greater after the age of one year, the problem, how to guard against the perils of the first year of life, becomes one for the gravest consideration.

TABLE VIII.—*Exhibiting, by Sex, the Number of Children under One Year of Age Returned as having Died in Michigan during the Year 1881; distinguishing the Months in which they Died, their Age in Months at Death, the Months in which they were Born, and whether Born in the Year of Death or in the Previous Year.\**

Months in which Births and Deaths Occurred,	NUMBER BORN IN EACH MONTH OF YEAR OF DEATH.			NUMBER OF CHILDREN WHO DIED AT EACH AGE IN MONTHS.													Number Born in each Month of Year Previ-ous to Year of Death.			DEATHS BY MONTHS.					
	Total.	Sex.	No. of each Sex.	Year.	-1.	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	Total.	No. of each Sex.	Year.	OF THOSE BORN IN YEAR OF DEATH.		OF THOSE BORN IN PREVIOUS YEAR.		ALL AGED UN-der ONE YEAR.	
January.....	338	Males... Females...	199 139	70 62	7 14	8 11	8 7	8 7	10 7	2 6	6 7	4 3	6 2	3 3	3 2	1 3	---	---	---	1881.	70 62	122 65	58 65	128 117	245
February.....	377	Males... Females...	208 169	76 62	16 8	6 7	6 6	8 3	10 3	1 5	16 2	6 4	1 1	5 2	2 1	5 8	4	3	---	1880.	92 70	162 39	60 99	152 168	261
March.....	389	Males... Females...	219 170	93 56	17 15	10 4	10 7	10 4	7 2	5 4	5 6	7 4	6 4	6 5	9 4	8 5	18	10	---	1881.	120 75	195 41	60 101	186 116	296
April.....	331	Males... Females...	233 148	92 44	10 8	6 7	5 7	5 5	5 4	6 3	4 6	2 4	8 3	7 4	4 1	14	23	14	9	---	113 66	179 39	44 71	157 96	253
May.....	357	Males... Females...	206 161	72 56	12 9	18 8	9 13	9 4	7 4	5 4	3 6	2 5	7 7	2 8	3 3	20	29	20	9	---	115 90	208 42	28 70	146 132	278
June.....	338	Males... Females...	189 149	84 59	12 15	16 11	9 12	9 7	11 8	13 8	9 1	5 2	8 7	6 4	7 3	21	42	21	21	---	144 112	256 62	37 62	181 137	318
July.....	304	Males... Females...	176 128	86 54	34 18	25 15	22 15	20 24	14 15	21 17	10 14	13 12	19 11	11 8	21 11	30	59	30	29	---	222 166	383 56	74 130	206 222	518
August.....	312	Males... Females...	186 126	115 77	33 33	25 22	46 29	34 28	29 19	32 21	25 20	18 11	25 20	18 11	25 18	67	106	67	106	---	345 252	457 78	89 167	424 330	764
September..	271	Males... Females...	142 129	89 70	33 27	33 23	33 23	25 22	24 22	31 17	16 17	29 15	20 14	17 10	15 11	63	121	63	121	---	287 237	524 83	45 83	332 275	607
October.....	293	Males... Females...	114 89	85 63	20 12	16 9	16 13	16 13	13 15	14 10	12 9	10 8	9 13	5 7	6 11	94	155	94	155	---	210 174	384 18	16 34	254 192	418
November...	139	Males... Females...	83 56	71 48	12 15	15 10	14 7	13 4	13 6	3 6	7 5	6 3	8 9	3 1	6 4	94	178	94	178	---	153 119	277 4	3 7	161 123	234
December...	291	Males... Females...	110 91	110 91	12 8	17 6	8 19	8 3	8 5	9 6	5 6	6 4	4 4	6 7	3 6	102	215	102	215	---	196 162	353 ---	---	---	358



EXHIBIT 4.—The Months of Birth and of Death of Children Born in 1880 who Died Under One Year of Age.

MONTHS OF BIRTH, 1880.	MONTHS OF DEATH, 1880.												Per Cent. of Children who Died under 1 month.	Per Cent. Died under 1 month. <sup>a</sup>	Births in 1880, as returned <sup>b</sup>	Per Cent. of Children who Died under 1 month. <sup>c</sup>
	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.				
Born in 1880, died aged under 1 yr.	4,143	4,143	4,143	4,143	4,143	4,143	4,143	4,143	4,143	4,143	4,143	4,143	4,143	4,143	4,143	4,143
January	280	96	18	9	16	18	33	30	27	8	6	6	33.57	33.57	33,297	4.08
February	325	139	95	15	10	12	26	39	24	12	8	11	43.77	43.77	2,513	5.53
March	343	124	31	20	18	43	42	42	27	6	6	8	35.94	35.94	2,860	4.86
April	364	147	29	13	33	49	34	12	15	9	6	3	40.38	40.38	2,824	5.21
May	369	108	16	35	54	36	19	15	7	8	7	9	34.95	34.95	2,880	3.76
June	328	108	51	47	32	20	15	13	7	2	11	11	32.93	32.93	2,772	3.90
July	333	124	59	40	22	20	14	13	10	10	12	9	36.69	36.69	3,011	4.12
August	376	156	45	24	24	21	8	18	13	11	13	11	41.49	41.49	3,285	4.76
September	336	134	42	13	26	17	6	9	6	12	13	10	39.88	39.88	3,278	4.09
October	340	128	37	30	15	13	7	10	7	10	30	36	37.65	37.65	3,178	4.03
November	362	106	28	19	14	11	9	9	6	25	38	25	43.09	43.09	3,068	5.08
December	434	219	13	17	10	9	17	24	54	31	12	7	30.40	30.40	3,278	6.68
No. of Deaths at each Age, Months	4,143	1639	362	288	274	268	215	167	186	185	157	185	36.56	36.56	35,287	4.64

<sup>a</sup> That is, per cent. of children who died during month of birth to total born in 1880 who died aged under one year.

<sup>b</sup> Excluding 3 in unknown month—18 males, 15 females, and 3 of unknown sex.

<sup>c</sup> That is, of the children born in 1880, the per cent. who died during month of birth—according to the returns of births and of deaths. It should be borne in mind that probably a larger proportion of the births and of the deaths are returned for the latter months of the year.

EXHIBIT 3.—Of the Children Born in 1880, the Number who Died during the Year 1880; the Number who Died during the Year 1881, under One Year of Age; The Total Number who Died under One Year of Age; and the Per Cent. of Decedents Aged under One Year to the Children Born in 1880, according to the Returns.

MONTHS OF BIRTH.	CHILDREN BORN IN 1880.					MALES BORN IN 1880.					FEMALES BORN IN 1880.				
	Births in 1880, as Returned.	Died during the Year 1880.	Died Aged under 1 Year during the Year 1881.	Total Died Aged under 1 Year.	Per Cent. of Deaths under 1 to Births.	Births of Males in 1880, as Returned.	Died during the Year 1880.	Died Aged under 1 Year during the Year 1881.	Total Died Aged under 1 Year.	Per Cent. of Deaths under 1 to Births.	Births of Females in 1880, as Returned.	Died during the Year 1880.	Died Aged under 1 Year during the Year 1881.	Total Died Aged under 1 Year.	Per Cent. of Deaths under 1 to Births.
Total..... <sup>a</sup>	55,937	3,193	950	4,143	11.74	18,355	1,817	514	2,331	12.70	16,873	1,376	436	1,812	10.74
January.....	2,355	286	.....	286	12.14	1,294	166	.....	166	13.45	1,119	126	.....	120	10.72
February.....	2,513	321	4	325	12.93	1,335	192	1	193	14.46	1,171	129	3	132	11.37
March.....	2,850	327	18	345	12.11	1,506	196	8	204	13.53	1,342	131	10	141	10.51
April.....	2,824	341	23	364	12.89	1,502	189	14	203	13.52	1,318	152	9	161	12.22
May.....	2,880	280	29	309	10.73	1,473	152	20	172	11.68	1,403	128	9	137	9.76
June.....	2,772	286	42	328	11.83	1,424	159	21	180	12.64	1,345	127	21	148	11.00
July.....	3,011	279	59	338	11.23	1,563	167	30	197	12.60	1,442	112	29	141	9.78
August.....	3,285	270	106	376	11.45	1,682	142	67	209	12.43	1,559	128	39	167	10.44
September.....	3,278	215	121	336	10.25	1,673	117	63	180	10.76	1,498	98	58	156	9.76
October.....	3,173	185	155	340	10.72	1,616	100	94	194	11.79	1,522	85	61	146	9.59
November.....	3,063	184	178	362	11.80	1,628	103	94	197	12.10	1,436	81	84	165	11.40
December.....	3,278	219	215	434	13.24	1,690	134	102	236	13.96	1,578	85	113	198	12.55

<sup>a</sup> Excluding 36 in unknown month,—13 males, 15 females, and 8 unknown sex.



# DEATHS—INFANT MORTALITY.

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EXHIBIT 4.—The Months of Birth and of Death of Children Born in 1880 who Died Under One Year of Age.

MONTHS OF BIRTH, 1880.	MONTHS OF DEATH, 1880.												Per Cent. of Deaths in 1880, as Re- turned b	Per Cent. of Deaths in 1880, as Re- turned b	Per Cent. of Deaths in 1880, as Re- turned b
	Jan.	Feb.	Mar.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.			
Born in 1880, died aged under 1 Yr. {	4,143	4,143	4,143	4,143	4,143	4,143	4,143	4,143	4,143	4,143	4,143	4,143	4,143	4,143	4,143
January	286	18	19	9	16	18	33	30	27	8	6	6	33.57	2,355	4.08
February	325	139	25	15	10	12	26	30	24	12	8	11	42.77	2,513	5.53
March	345	124	31	20	16	43	42	27	8	6	8	5	35.94	2,850	4.35
April	364	147	29	13	33	49	34	12	15	9	6	3	40.38	2,894	5.21
May	369	108	16	35	54	36	19	15	7	8	7	9	34.95	2,880	3.75
June	328	103	51	47	32	20	15	13	7	2	11	11	32.92	2,772	3.90
July	333	124	60	40	22	20	14	13	10	10	12	9	38.69	3,011	4.12
August	376	156	45	24	24	21	8	18	13	11	13	11	41.49	3,253	4.75
September	336	134	42	13	26	17	6	9	6	12	13	10	39.88	3,278	4.09
October	340	128	27	30	15	13	7	10	7	10	30	36	37.65	3,173	4.03
November	392	156	28	19	14	11	9	9	6	25	38	25	43.09	3,068	5.08
December	434	219	21	13	17	10	9	17	24	54	31	12	50.46	3,278	6.68
Deaths at each Age. {	4,143	1639	392	288	274	238	215	157	186	185	157	185	39.56	35,287	4.64

a That is, per cent. of children who died during month of birth to total born in 1880 who died aged under one year.

b Excluding 38 in unknown month, 18 males, 15 females, and 3 of unknown sex.

c That is, of the children born in 1880, the per cent. who died during month of birth,—according to the returns of births and of deaths. It should be borne in mind that probably a larger proportion of the births and of the deaths are returned for the latter months of the year.

## RELATIONS OF DEATHS OF CHILDREN TO BIRTHS, BY MONTHS.

The relation of deaths of children aged under one month to births, in 1881, is shown, by sex, and by months, in Exhibit 5. The total number of deaths under one month was 1,834, being 5.28 per cent. of the births. Of this number 5.83 per cent. were among the males, and 4.41 per cent. among the females.

EXHIBIT 5.—*The Relation, by Months, by Total, and by Sex, of the Decedents Aged under One Month to the Births in Michigan during the Year ending December 31, 1881.*

SEX, ETC., SPECIFIED.	YEAR, 1881.	MONTHS, 1881.												
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
{ Births.....	34,749	2,393	2,432	2,835	2,805	2,887	2,712	3,027	3,313	3,204	3,078	2,854	3,179	80
Total.....	1,834	125	143	150	136	134	147	146	197	163	154	124	211	4
{ Per Cent. of Deaths to Births....	5.28	5.22	5.88	5.29	4.85	4.64	5.42	4.82	5.95	5.09	5.00	4.34	6.64	18.33
{ Births.....	17,941	1,293	1,246	1,456	1,503	1,469	1,412	1,573	1,633	1,631	1,624	1,436	1,630	16
Males.....	1,046	70	76	93	92	72	84	86	115	89	85	71	110	3
{ Deaths aged under one month....	5.83	5.55	6.10	6.39	6.12	4.90	5.95	5.47	6.53	5.46	5.23	4.94	6.75	18.75
{ Per Cent. of Deaths to Births....	16,747	1,193	1,179	1,376	1,301	1,413	1,296	1,447	1,625	1,568	1,451	1,410	1,540	13
{ Births.....	738	52	62	56	44	56	59	54	77	70	68	48	91	1
{ Deaths aged under one month....	4.41	4.61	5.36	4.07	3.38	3.96	4.55	3.73	4.74	4.46	4.09	3.40	5.91	7.69
{ Per Cent. of Deaths to Births....	61	3	7	3	1	5	4	7	5	5	3	8	9	1
{ Births.....	50	3	5	1	-----	6	4	6	5	4	1	5	10	-----
{ Deaths aged under one month....														

\* Still-births included.

# DEATHS OF CENTENARIANS.

Eight persons died in Michigan aged over one hundred years. Five of them were born in Ireland. Perhaps the most significant fact that the table shows is with reference to the time of year in which the deaths occurred, six having died in the cold months, one in May and one in September.

TABLE IX.—Deaths Returned as having occurred in Michigan during the Year 1881, of Persons Aged One hundred Years and Over, Exhibiting certain Details concerning them included in the Returns.

NAMES OF CENTENARIANS, 1881.	SEX.	Color.	Married, Single, or Widowed.	Birthplace.	AGE.			Occupation.	PLACE OF DEATH.		DATE OF DEATH, 1881.		Cause of Death.
					Years.	Months.	Days.		Town.	County.	Month.	Day.	
Hannah Wood.....	Female..	White.	Widow....	Vermont.....	103	7	6	Farmer.....	Battle Cr'k.	Calhoun....	September..	4	Old Age.
Cornellus McVennle..	Male...	White.	Widower..	Ireland.....	104	3	12	Farmer.....	North Plains	Ionia.....	January.....	19	Old Age.
Mary Harrity.....	Female..	White.	Widow....	Ireland.....	102	....	4	Unknown....	Gr'd Rapids.	Kent.....	December....	14	Old Age.
James Thibault.....	Male....	White.	Widower..	Michigan.....	105	....	....	Farmer.....	Erin.....	Macomb....	March.....	5	Old Age.
Ellen Howard.....	Female..	White.	Widow....	Ireland.....	103	....	....	Unknown....	Bennington.	Shiawassee.	February....	5	Old Age.
Timothy Kelley.....	Male....	White.	Married...	Ireland.....	100	....	....	Farmer.....	Emmett....	St. Clair....	May.....	1	Debility.
Todd Caesar.....	Male....	Black..	Married...	Virginia.....	100	....	....	Basket-maker.	Flowerfield.	St. Joseph..	November....	27	Old Age.
Bridget Conely.....	Female..	White.	Widow....	Ireland.....	103	....	....	Housewife..	Taylor.....	Wayne.....	December....	1	Old Age.

# DEATHS OF CENTENARIANS.

## VITAL STATISTICS OF MICHIGAN, 1881.

## TOWNSHIPS IN WHICH NO DEATHS OCCURRED.

There were thirty-two townships in which it was reported that no deaths occurred in 1881. It is probable that the increase of population will very soon greatly reduce the number of townships thus reporting. In 1876 seventy-five townships were included in the list.

EXHIBIT I.—*Counties and Townships in which it is Reported that no Deaths Occurred in 1881.*

COUNTIES.	TOWNSHIPS, NO DEATHS IN 1881.	POPULATION.			COUNTIES.	TOWNSHIPS, NO DEATHS IN 1881.	POPULATION.		
		Total.	Males.	Fe-males.			Total.	Males.	Fe-males.
Total.....	.....	6,065	3,677	2,378	Manistee..	Cleon.....*	.....	.....	.....
Baraga.....	Arvon.....	100	66	34	Manistee..	Marilla.....	166	91	75
Bay.....	Beaver.....	351	181	170	Manitou ..	Chandler.....	407	224	183
Benzie.....	Homestead.....	208	100	108	Manitou ..	Galliee.....	177	100	77
Charlevoix..	Boyne Valley...	451	237	214	Mecosta...	Sheridan.....	207	120	87
Charlevoix..	Norwood.....	306	156	150	Midland...	Greendale.....*	.....	.....	.....
Cheboygan..	Ellis.....*	.....	.....	.....	Midland...	Mt. Hayley.....	223	120	103
Cheboygan..	Ball.....	66	33	28	Midland...	Warren.....	300	175	125
Crawford...	Grove.....	166	97	69	Montmor'cy	Montmorency..*	.....	.....	.....
Crawford...	Maple Forest...	80	56	24	Montmor'cy	Blue Lake.....	307	173	134
Emmet.....	Bliss.....	192	105	87	Muskegon	Cedar Creek....	356	194	162
Emmet.....	Carp Lake.....	109	70	39	Muskegon	Laketon.....	913	570	343
Iosco.....	Thompson.....	81	64	17	Presque I.	Bismarck.....	100	63	37
Iosco.....	Center.....*	.....	.....	.....	Presque I.	Denton.....	210	162	48
Lake.....	Glencoe.....	126	91	35	Roscom'on	Gerrish.....	214	196	18
Lake.....					Roscom'on	Nester.....	234	228	6

\* Organized since Census was taken.



TABLE X.—*Exhibiting, for the State and Counties, by Sex, the Number of Deaths Returned as having Occurred in Michigan during the Year 1881, and in each Month of the Year; also the Number of Deaths at each Period of Age.*

STATE AND COUNTIES.	SEX.	MONTHS, 1881.												AGES IN PERIODS OF YEARS, 1881.																		
		YEAR, 1881.																														
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.	Under 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and over.	Unknown.
State	Total.....	19,338	19,655	19,781	19,315	19,427	19,457	19,776	19,701	22,466	23,001	19,441	16,617	17,748	667,816	14,776	8,222	8,227	9,665	7,683	6,116	5,660	6,112	4,922	5,088	5,609	5,774	5,662	6,449	6,881	7,118	2,955
	Males.....	10,963	10,551	10,562	10,732	10,803	10,737	10,673	9,111	11,998	12,226	10,967	8,895	9,227	404,396	7,322	4,000	3,799	4,833	3,301	2,880	2,772	2,857	2,764	2,509	2,773	3,221	3,530	3,900	4,004	1,653	
	Females.....	8,910	8,908	8,909	8,909	8,909	8,909	8,909	8,909	8,909	8,909	8,909	8,909	8,909	8,909	7,454	4,222	4,428	4,832	4,382	3,227	2,888	2,805	2,158	2,369	2,909	2,386	2,533	2,332	2,539	5,511	1,116
	Unknown.....	63	5	7	3	6	5	9	10	4	1	5	10	59	Under 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and over.	Unknown.
Alcona	Total.....	12	7	5	1	1	1	1	1	6	2	4	4	153	29	12	18	20	16	11	12	13	8	18	14	16	13	18	16	23	2	
	Males.....	7	4	3	1	1	1	1	1	2	2	3	3	82	18	6	4	6	6	6	7	5	6	12	2	11	7	11	10	16	1	
	Females.....	5	3	2	1	1	1	1	1	4	1	1	1	71	11	6	14	14	10	5	5	8	2	6	12	5	6	7	6	7	2	
	Unknown.....	412	25	18	29	32	27	29	55	57	45	40	30	153	29	12	18	20	16	11	12	13	8	18	14	16	13	18	16	23	2	
Allegan	Total.....	215	16	12	11	17	18	15	14	26	28	24	19	15	82	18	6	4	6	6	6	7	5	6	12	2	11	7	11	10	16	1
	Males.....	197	9	13	7	12	14	12	15	29	29	21	21	15	71	11	6	14	14	10	5	5	8	2	6	12	5	6	7	6	7	2
	Females.....	114	5	9	7	12	7	5	14	17	11	9	10	7	71	4	2	2	3	6	3	1	4	3	2	1	2	2	2	2	2	4
	Unknown.....	74	8	5	11	2	3	11	11	9	4	5	3	1	45	3	2	1	3	3	3	1	1	2	2	1	2	2	1	1	4	
Alpena	Total.....	40	2	2	3	2	3	2	3	6	2	5	5	4	26	1	1	1	3	3	3	3	3	1	1	1	1	1	1	1	1	1
	Males.....	75	2	5	4	3	11	3	6	7	6	12	10	10	29	7	5	2	2	4	4	4	1	4	2	4	1	1	1	1	1	1
	Females.....	35	2	2	2	1	7	3	4	3	2	4	3	2	13	5	2	2	3	2	1	2	2	2	2	2	2	2	2	2	2	1
	Unknown.....	40	3	2	2	4	4	2	4	4	4	2	9	8	16	2	3	3	1	2	3	2	1	2	2	1	1	1	1	1	1	1
Antrim	Total.....	75	2	5	4	3	11	3	6	7	6	12	10	10	29	7	5	2	2	4	4	4	1	4	2	4	1	1	1	1	1	1
	Males.....	35	2	2	2	1	7	3	4	3	2	4	3	2	13	5	2	2	3	2	1	2	2	2	2	2	2	2	2	2	2	1
	Females.....	40	3	2	2	4	4	2	4	4	4	2	9	8	16	2	3	3	1	2	3	2	1	2	2	1	1	1	1	1	1	1
	Unknown.....	40	3	2	2	4	4	2	4	4	4	2	9	8	16	2	3	3	1	2	3	2	1	2	2	1	1	1	1	1	1	1

TABLE X.—CONTINUED.—Deaths by Counties, by Sex, by Months, and by Age, 1881.

COUNTIES.	SEX.	MONTHS, 1881.												AGES IN PERIODS OF YEARS, 1881.																			
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.	Under 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and over.	Unknown.	
Baraga.....	Total.....	18	2	4	8	1	1	1	2	.....	.....	1	3	.....	8	1	1	1	3	.....	3	2	.....	2	.....	1	1	.....	.....	.....	.....	.....	.....
	Males.....	7	.....	2	.....	.....	1	1	1	.....	.....	.....	2	.....	3	.....	.....	1	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	
	Females..	11	2	2	3	1	.....	.....	1	.....	.....	1	1	.....	5	1	1	.....	2	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Barry.....	Total.....	260	7	11	17	18	21	14	23	43	53	37	24	19	108	41	20	13	11	8	5	8	7	4	7	7	9	9	15	10	1	1	.....
	Males.....	136	2	7	6	7	11	8	11	18	23	19	4	10	50	18	8	6	4	2	1	3	3	3	3	3	5	4	4	5	5	.....	.....
	Females..	164	5	4	11	11	13	6	12	25	30	18	20	9	58	23	12	7	7	4	4	4	1	4	4	4	4	5	5	10	5	1	.....
Bay.....	Total.....	541	22	28	32	41	41	37	78	63	53	65	40	41	275	58	33	23	33	20	18	7	18	16	7	9	6	8	3	3	4	.....	.....
	Males.....	305	14	11	19	24	23	19	45	38	31	31	29	21	152	35	16	11	22	13	8	2	14	8	2	7	5	5	2	1	2	.....	.....
	Females..	236	8	17	13	17	18	18	33	25	22	34	11	20	123	23	17	12	11	7	10	5	4	8	5	2	1	3	1	2	2	.....	.....
Bonzie.....	Total.....	65	4	6	2	1	5	3	2	4	17	9	5	7	22	2	.....	5	7	7	1	.....	.....	3	1	1	2	2	3	.....	1	7	.....
	Males.....	33	2	2	.....	1	1	3	.....	2	12	4	4	2	10	1	.....	1	2	4	1	.....	1	.....	.....	2	2	2	.....	.....	.....	6	.....
	Females..	32	2	4	2	.....	4	.....	2	2	5	5	1	5	12	1	.....	4	5	3	.....	.....	.....	2	1	1	.....	1	.....	1	.....	1	.....
Berrien.....	Total.....	307	26	14	21	28	29	18	19	23	36	33	24	27	97	10	9	15	17	10	9	9	12	12	9	16	17	6	16	14	18	11	.....
	Males.....	150	11	8	11	14	13	11	11	18	14	9	14	15	53	6	3	6	8	2	4	2	7	4	6	8	5	3	11	8	6	.....	.....
	Females..	156	14	6	10	14	16	7	8	11	22	24	10	12	43	4	6	9	9	8	5	7	5	8	3	8	12	3	5	6	10	5	.....
	Unknown	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

Branch.....	{	Total.....	235	10	10	21	27	19	9	20	34	34	23	30	13	61	5	4	11	12	12	10	7	16	9	11	9	6	16	19	18	11		
			Males.....	157	5	4	13	22	10	2	13	19	23	16	19	9	40	3	2	4	4	10	7	1	8	5	7	3	5	13	13	12	8	
			Females..	98	5	6	8	5	9	7	5	15	11	12	11	4	21	2	2	7	8	2	3	6	8	4	4	6	1	3	6	6	3	
Calhoun.....	{	Total.....	426	24	23	41	38	36	21	31	53	52	43	32	32	118	15	10	18	32	13	16	13	13	12	14	23	21	16	29	29	5		
			Males.....	223	12	14	16	23	20	9	18	27	31	17	16	20	66	8	4	9	18	1	5	5	4	5	10	13	14	9	15	18	1	
			Females..	196	12	8	25	15	15	11	12	25	20	26	15	12	45	7	6	9	14	12	11	8	9	7	4	10	7	7	11	14	11	4
{	Unknown	{	7	1	1	1	1	1	1	1	1	1	1	1	7	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
			Total.....	176	8	8	16	14	13	13	15	15	21	23	17	12	61	4	4	5	5	8	11	2	7	5	6	5	7	14	6	13	11	2
			Males.....	85	2	5	11	5	7	7	8	8	8	10	8	5	1	29	3	3	3	3	3	4	5	1	4	1	3	8	4	7	7	7
Cass.....	{	Total.....	91	6	3	5	9	6	7	7	13	13	9	7	82	1	1	2	5	5	7	2	2	4	2	4	4	4	6	2	6	4	2	
			Males.....	54	2	1	2	6	4	2	2	10	9	3	6	7	26	4	1	5	2	1	1	1	2	2	1	1	1	1	1	1	2	3
			Females..	27	1	1	3	3	3	2	6	4	2	3	3	3	14	2	2	2	2	2	2	1	1	2	2	2	1	1	1	1	1	3
Charlevoix.....	{	Total.....	27	2	1	1	3	1	2	4	5	1	3	4	12	2	1	5	1	1	1	1	1	2	2	1	1	1	1	1	1	2	1	
			Males.....	109	7	6	6	5	6	10	16	14	12	13	14	60	11	6	4	4	3	4	2	2	2	2	1	1	2	2	2	2	1	5
			Females..	59	4	6	4	2	4	8	9	6	5	5	6	32	7	2	1	1	2	3	1	1	1	1	1	1	1	1	1	1	1	4
Cheboygan.....	{	Total.....	50	3	3	3	2	3	2	2	7	8	7	8	8	28	4	4	3	3	1	1	1	2	1	1	1	1	1	1	1	1	1	
			Males.....	10	1	1	2	2	2	2	2	2	2	2	1	3	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
			Females..	5	1	1	1	1	1	1	1	1	1	1	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Chippewa.....	{	Total.....	66	1	6	4	9	5	7	7	5	5	5	2	5	19	7	10	2	3	3	2	2	3	3	3	3	3	3	3	3	3	7	
			Males.....	33	1	2	1	6	3	3	2	3	1	3	1	3	1	2	2	5	2	1	1	1	1	1	1	1	1	1	1	1	1	5
			Females..	33	4	3	3	2	4	5	2	4	5	2	4	2	1	3	7	5	5	2	1	2	1	2	2	2	2	2	2	2	2	2
Clare.....	{	Total.....	276	13	6	17	26	29	16	21	41	27	34	32	14	96	18	22	11	16	14	10	3	7	8	11	7	5	8	12	11	14	3	
			Males.....	131	5	7	11	15	8	13	20	13	17	17	15	5	51	11	9	4	5	8	2	1	4	3	5	3	3	4	7	3	2	2
			Females..	145	8	6	10	15	14	8	8	21	14	17	15	9	45	7	13	7	11	6	8	2	3	5	6	4	2	4	5	8	8	8
Clinton.....	{	Total.....	145	8	6	10	15	14	8	8	21	14	17	15	9	45	7	13	7	11	6	8	2	3	5	6	4	2	4	5	8	8	8	
			Males.....	145	8	6	10	15	14	8	8	21	14	17	15	9	45	7	13	7	11	6	8	2	3	5	6	4	2	4	5	8	8	8
			Females..	145	8	6	10	15	14	8	8	21	14	17	15	9	45	7	13	7	11	6	8	2	3	5	6	4	2	4	5	8	8	8

TABLE X.—CONTINUED.—Deaths by Counties, by Sex, by Months, and by Age, 1881.

COUNTIES.	SEX.	Year, 1881.	MONTHS, 1881.												AGES IN PERIODS OF YEARS, 1881.																			
			January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.	Under 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and over.	Unknown.	
Crawford.....	Total.....	16	1	1	1	1	1	5	2	3	1	1	1	3	7	2	2	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	Males.....	7	1	1	1	1	1	2	1	1	1	1	1	2	3	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	Females..	9	1	1	1	1	1	3	1	2	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Delta.....	Total.....	83	8	4	2	2	1	5	9	13	9	12	8	10	40	10	3	4	4	3	6	3	1	2	2	2	2	2	2	2	2	2	2	2
	Males.....	45	2	2	1	2	1	2	5	5	4	8	7	6	24	5	1	4	2	1	2	2	1	1	1	1	1	1	1	1	1	1	1	
	Females..	34	6	2	1	1	1	3	4	4	5	4	1	4	16	5	2	2	2	2	4	1	1	1	1	1	1	1	1	1	1	1	1	
	Unknown	4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Eaton.....	Total.....	576	24	22	25	23	21	21	21	50	50	39	31	29	138	27	13	14	13	16	13	11	10	6	12	6	10	11	16	13	13	5	5	
	Males.....	172	13	7	13	11	9	13	11	31	24	16	12	12	72	13	9	4	7	9	2	3	4	1	6	4	8	5	9	7	7	2	2	
	Females..	184	11	15	12	12	12	8	10	19	26	23	19	17	66	14	4	10	6	7	11	8	6	5	6	2	11	6	7	6	6	3	3	
Emmet.....	Total.....	79	8	10	5	2	3	4	5	7	9	11	5	10	43	7	2	3	4	2	4	1	1	1	1	1	1	1	1	1	1	1	1	
	Males.....	44	4	4	3	1	2	2	3	4	3	7	2	9	26	3	1	2	3	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
	Females..	35	4	6	2	1	1	2	2	3	6	4	3	1	17	4	2	1	1	2	3	1	1	1	1	1	1	1	1	1	1	1	1	
Genesee.....	Total.....	409	17	23	21	32	47	36	24	39	50	42	36	40	130	27	18	18	16	22	17	7	11	11	14	12	15	22	18	15	31	5	5	
	Males.....	208	8	11	11	16	21	17	13	23	23	27	17	20	64	13	11	8	6	9	9	4	4	5	11	8	7	11	10	10	15	3	3	
	Females..	201	9	12	10	16	26	19	11	16	27	15	19	20	66	14	7	10	10	13	8	3	7	6	3	4	8	11	8	6	16	2	2	







## DEATHS—BY COUNTIES, BY SEX, BY MONTHS, BY AGE.

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[illegible]

\* No returns from the county clerk to the State Department.







**DEATHS—BY COUNTIES, BY SEX, BY MONTHS, BY AGE.**

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Mason.....	Total.....	184	15	9	15	11	15	15	17	22	17	16	13	10	3	88	31	16	12	4	2	3	2	2	2	1	2	5	1	4	3	2
	Males.....	93	5	3	9	4	7	10	9	10	9	9	8	8	2	48	16	6	6	1	1	1	2	1	1	1	1	3	1	2	2	1
	Females..	91	10	6	6	7	8	5	8	12	8	7	5	8	1	40	15	11	6	3	1	2	1	1	1	1	1	2	1	2	1	1
McCoast.....	Total.....	297	14	20	18	31	20	14	24	27	42	25	16	36	--	112	54	34	17	20	12	10	6	2	5	5	2	4	5	2	2	2
	Males.....	103	8	9	6	19	10	9	13	13	26	20	13	22	--	65	24	15	10	11	7	6	4	2	4	2	1	5	1	1	1	1
	Females..	134	11	11	12	12	10	5	11	14	16	15	3	14	--	47	30	19	7	9	5	4	2	1	3	1	1	1	1	2	1	1
Menominee...	Total.....	150	9	7	11	16	6	14	17	21	19	13	7	10	--	85	9	1	4	5	9	4	6	1	2	1	2	2	1	1	18	1
	Males.....	93	3	5	7	11	2	8	9	15	10	13	6	6	--	47	7	1	2	4	8	4	3	1	2	1	2	2	1	1	11	1
	Females..	54	6	1	4	5	4	6	8	6	9	1	1	4	--	38	2	--	2	1	1	3	3	1	3	1	1	1	1	6	6	1
	Unknown	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1
Midland.....	Total.....	82	4	1	4	6	8	6	12	8	9	9	4	10	2	32	9	4	1	3	2	1	5	3	4	4	1	2	1	1	11	11
	Males.....	46	--	1	1	4	5	3	8	4	4	6	3	6	1	19	6	--	1	2	1	2	2	2	2	2	1	2	1	1	6	1
	Females..	36	4	--	3	2	3	3	4	5	5	1	1	4	1	12	3	4	--	1	2	1	3	1	1	2	--	--	--	5	5	1
	Unknown	1	--	--	--	--	--	--	1	--	--	--	--	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Missaukee...	Total.....	27	--	4	2	--	2	2	2	6	1	1	3	3	1	13	--	3	--	3	2	--	2	--	--	--	1	1	1	1	1	1
	Males.....	15	--	3	1	--	--	1	1	3	--	--	2	3	1	8	--	1	--	2	1	--	2	--	--	--	--	--	--	--	--	1
	Females..	11	--	1	1	--	2	1	1	3	1	1	--	--	--	4	--	2	--	1	1	--	--	--	--	1	1	1	1	--	--	--
	Unknown	1	--	--	--	--	--	--	--	--	--	--	1	--	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Monroe.....	Total.....	246	16	22	23	21	15	24	23	47	41	47	23	44	--	138	13	11	13	14	15	9	8	14	11	11	17	8	12	42	10	2
	Males.....	170	7	8	12	8	4	15	15	20	22	27	10	22	--	70	5	6	6	4	2	4	2	7	6	5	10	5	6	12	11	1
	Females..	176	9	14	11	13	11	9	8	27	19	20	13	21	--	67	8	5	7	10	13	5	6	7	5	6	7	8	10	5	4	1
	Unknown	1	--	--	--	--	--	--	--	--	--	--	--	1	--	1	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



## DEATHS—BY COUNTIES, BY SEX, BY MONTHS, BY AGE.

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Oceana.....	{ Total.....		100	11	1	16	12	12	13	23	14	20	18	5	5	10	6	8	9	2	2	3	4	1	4	21	2	4	1
	{ Males.....		73	6	9	8	7	8	6	9	6	12	9	1	2	44	7	3	4	1	1	1	1	1	3	2	2	2	1
	{ Females..		28	5	2	8	5	9	7	14	8	14	9	4	3	38	1	7	5	7	1	2	2	1	1	1	1	4	3
Ogemaw.....	{ Total.....		25	1	1	1	1	1	3	2	1	2	3	2	4	14	1	1	1	1	1	1	1	1	1	1	2	2	2
	{ Males.....		13	1	1	1	1	1	1	1	1	1	1	1	1	7	1	1	1	1	1	1	1	1	1	1	1	1	1
	{ Females..		12	1	1	1	1	1	2	1	1	1	1	1	1	7	1	1	1	1	1	1	1	1	1	1	1	1	1
Ontonagon.....	{ Total.....		19	1	1	1	1	1	1	1	1	1	1	1	1	7	1	1	1	1	1	1	1	1	1	1	1	1	1
	{ Males.....		15	1	1	1	1	1	1	1	1	1	1	1	1	7	1	1	1	1	1	1	1	1	1	1	1	1	1
	{ Females..		4	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Osceola.....	{ Total.....		127	6	4	9	13	8	14	17	18	13	11	6	8	64	8	4	3	9	5	8	2	1	1	1	1	1	4
	{ Males.....		61	5	1	2	8	3	7	8	7	6	7	3	4	35	4	3	1	3	1	4	1	1	1	1	1	1	2
	{ Females..		66	1	3	7	5	5	7	9	11	7	4	3	4	29	4	1	2	6	5	4	1	1	1	1	1	1	2
Oscoda.....	{ Total.....		11	1	1	1	1	1	1	1	1	1	1	1	1	5	3	1	1	1	1	1	1	1	1	1	1	1	1
	{ Males.....		5	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1	1	1	1	1	1	1	1	1	1
	{ Females..		6	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1
Otsego.....	{ Total.....		23	1	3	3	1	1	4	1	3	3	3	1	1	14	1	1	1	1	1	1	1	1	1	1	1	1	1
	{ Males.....		12	1	2	2	1	1	4	1	3	3	3	1	1	8	1	1	1	1	1	1	1	1	1	1	1	1	1
	{ Females..		11	1	1	1	1	1	1	1	1	1	1	1	1	6	1	1	1	1	1	1	1	1	1	1	1	1	1
Ottawa.....	{ Total.....		420	26	20	14	33	36	30	23	63	39	41	41	52	2	151	37	16	21	29	12	10	12	6	18	9	8	11
	{ Males.....		241	14	1	10	18	2	16	15	32	23	22	27	30	2	103	18	8	12	8	7	10	4	8	3	5	15	6
	{ Females..		175	1	8	4	15	13	14	8	31	16	19	14	22	74	19	8	9	12	5	2	6	4	8	3	3	2	5
Unknown.....	{ Total.....		4	1	1	1	1	1	1	1	1	1	1	1	1	4	1	1	1	1	1	1	1	1	1	1	1	1	1
	{ Males.....		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
	{ Females..		3	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1

19—1881.





**DEATHS—BY COUNTIES, BY SEX, BY MONTHS, BY AGE.**

[illegible]

## VITAL STATISTICS OF MICHIGAN, 1881.

## COLOR OF PERSONS WHO DIED IN MICHIGAN IN 1881.

Certain facts of interest pertaining to the study of this subject may be found in Tables XI. and XII. Table XII. permits a study of the details respecting color of decedents in 1881 in each county of the State.

TABLE XI.—Deaths Returned as having occurred in Michigan during the Year 1881, distinguishing the Color by Number and Proportion of each Sex; and, by Sex, the Per Cent. of Decedents of each Color to Total of All Colors; the Per Cent. of Inhabitants of each Color to Total of All Colors; also the Per Cent. of Decedents to Inhabitants.

COLOR.	SEX.	Population June 1, 1880.	Number of Deaths Returned.	Per Cent. of Deaths of each Sex to Total of Both Sexes.	Males to 100 Females.	Per Cent. of Deaths of each Color to Total of All Colors, by Sex.	Per Cent. of Inhabitants of each Color to Total of All Colors by Sex, June 1, 1880.*	Death-rate, — Per Cent. of Deaths in 1881 to Population in 1880.
All Colors.....	Total.....	61,621,927	19,238	-----	-----	100.00	100.00	1.19
	Males.....	853,637	10,263	53.53	115.18	100.00	-----	1.20
	Females.....	768,290	8,910	46.47	-----	100.00	-----	1.16
	Unknown.....	-----	65	-----	-----	100.00	-----	-----
White.....	Total.....	1,599,932	18,803	-----	-----	97.74	98.64	1.18
	Males.....	-----	10,042	53.53	115.19	97.85	-----	-----
	Females.....	-----	8,718	46.47	-----	97.83	-----	-----
	Unknown.....	-----	43	-----	-----	66.15	-----	-----
Black.....	Total.....	-----	144	-----	-----	.75	-----	-----
	Males.....	-----	84	58.33	140.00	.82	-----	-----
	Females.....	-----	60	41.67	-----	.67	-----	-----
Mulatto.....	Total.....	-----	56	-----	-----	.29	-----	-----
	Males.....	-----	31	55.36	124.00	.30	-----	-----
	Females.....	-----	25	44.64	-----	.28	-----	-----
Indian.....	Total.....	7,049	190	-----	-----	.99	.43	2.70
	Males.....	-----	95	50.26	101.06	.93	-----	-----
	Females.....	-----	94	49.74	-----	1.05	-----	-----
	Unknown.....	-----	1	-----	-----	1.54	-----	-----
Unknown.....	Total.....	-----	45	-----	-----	.23	-----	-----
	Males.....	-----	11	45.83	84.62	.11	-----	-----
	Females.....	-----	13	54.17	-----	.15	-----	-----
	Unknown.....	-----	21	-----	-----	32.31	-----	-----
Black and Mulatto.....	Total.....	14,918	200	-----	-----	1.04	.92	1.34
	Males.....	-----	115	57.50	135.29	1.12	-----	-----
	Females.....	-----	85	42.50	-----	.95	-----	-----

\* Population represented by returns of deaths in 1881.

† Includes 28 Asiatics.

TABLE XII.—*Exhibiting, by Number and by Sex, for the State and Counties, the Color of All Persons Returned as having Died in Michigan during the Year ending December 31, 1881.*

STATE AND COUNTIES.	ALL COLORS,—1881.				WHITE.				BLACK.			MU- LATTO.		INDIAN.			UNKNOWN.		
	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Unknown.	Total.
State .....	19,238	10,263	8,910	65	18,803	10,042	8,718	43	144	84	60	56	31	25	190	95	94	1	45
Alcona .....	12	7	5	..	12	7	5	..	..	..	..	..	..	..	..	..	..	..	..
Allegan .....	412	215	197	..	412	215	197	..	..	..	..	..	..	..	..	..	..	..	..
Alpena .....	114	74	40	..	113	73	40	..	1	1	..	..	..	..	..	..	..	..	..
Antrim .....	75	35	40	..	61	31	30	..	..	..	..	1	1	..	13	3	10	..	..
Baraga .....	18	7	11	..	8	4	4	..	..	..	..	..	..	..	10	3	7	..	..
Barry .....	290	126	164	..	290	126	164	..	..	..	..	..	..	..	..	..	..	..	..
Bay .....	541	305	236	..	536	300	236	..	1	1	..	2	2	..	2	2	..	..	..
Benzie .....	65	33	32	..	63	32	31	..	1	1	..	1	..	1	..	..	..	..	..
Berrien .....	307	150	156	1	300	148	151	1	5	2	3	2	..	2	..	..	..	..	..
Branch .....	255	157	98	..	253	155	98	..	..	..	..	1	1	..	1	1	..	..	..
Calhoun .....	496	223	196	7	414	219	189	6	10	4	6	..	..	..	..	..	..	2	1
Cass .....	176	85	91	..	156	77	79	..	10	6	4	10	2	5	..	..	..	..	..
Charlevoix .....	54	27	27	..	39	20	19	..	1	..	1	..	..	..	14	7	7	..	..
Cheboygan .....	109	59	50	..	103	56	47	..	1	..	1	..	..	..	5	3	2	..	..
Chippewa .....	10	5	5	..	5	3	2	..	..	..	..	2	1	1	3	1	2	..	..
Clare .....	66	33	33	..	66	33	33	..	..	..	..	..	..	..	..	..	..	..	..
Clinton .....	276	131	145	..	275	130	145	..	..	..	..	1	1	..	..	..	..	..	..
Crawford .....	16	7	9	..	15	7	8	..	..	..	..	..	..	..	1	..	1	..	..
Delta .....	83	45	34	4	83	45	34	4	..	..	..	..	..	..	..	..	..	..	..
Eaton .....	356	172	184	..	355	171	184	..	1	1	..	..	..	..	..	..	..	..	..
Emmet .....	79	44	35	..	45	27	18	..	..	..	..	..	..	..	34	17	17	..	..
Genesee .....	409	208	201	..	399	203	196	..	3	1	2	7	4	3	..	..	..	..	..
Gladwin .....	10	5	4	1	10	5	4	1	..	..	..	..	..	..	..	..	..	..	..
G'd Traverse .....	70	36	34	..	70	36	34	..	..	..	..	..	..	..	..	..	..	..	..
Gratiot .....	212	109	102	1	209	108	100	1	..	..	..	3	1	2	..	..	..	..	..
Hillsdale .....	372	208	164	..	369	205	164	..	2	2	..	..	..	..	..	..	..	1	1
Houghton .....	243	131	112	..	243	131	112	..	..	..	..	..	..	..	..	..	..	..	..
Huron .....	242	116	125	1	241	115	125	1	..	..	..	..	..	..	..	..	..	1	1
Ingham .....	298	147	150	1	296	147	149	..	1	..	1	..	..	..	..	..	..	1	1
Ionia .....	300	154	145	1	299	154	145	..	..	..	..	..	..	..	..	..	..	1	..
Iosco .....	174	90	84	..	174	90	84	..	..	..	..	..	..	..	..	..	..	..	..
Isabella .....	176	91	85	..	169	86	83	..	..	..	..	..	..	..	5	2	..	..	..

TABLE XII.—CONTINUED.—*Deaths by Counties, by Color, and by Sex.*

COUNTIES.	ALL COLORS,—1881.				WHITE.				BLACK.		MT-LATTO.		INDIAN.				UNKNOWN.		
	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.
Isle Royal.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Jackson.....	407	225	182	—	395	217	178	—	9	5	4	2	2	—	—	1	1	—	—
Kalamazoo....	437	221	216	—	429	216	213	—	8	5	3	—	—	—	—	—	—	—	—
Kalkaska.....	38	20	18	—	38	20	18	—	—	—	—	—	—	—	—	—	—	—	—
Kent.....	1,022	549	472	1	1,005	542	463	—	6	4	2	—	—	—	—	11	3	7	1
Keweenaw....	122	67	51	4	122	67	51	4	—	—	—	—	—	—	—	—	—	—	—
Lake.....	48	29	19	—	47	29	18	—	—	—	—	—	1	1	—	—	—	—	—
Lapeer.....	306	154	151	1	304	152	151	1	—	—	2	2	—	—	—	—	—	—	—
Leelanaw.....	96	56	39	1	49	30	19	—	—	—	—	—	47	26	20	1	—	—	—
Lenawee.....	415	216	198	1	414	215	198	1	—	—	—	—	—	—	—	1	1	—	—
Livingston....	230	137	122	—	257	136	121	—	2	1	1	—	—	—	—	—	—	—	—
Mackinac.....	19	10	9	—	16	9	7	—	—	—	—	—	3	1	2	—	—	—	—
Macomb.....	305	187	118	—	305	187	118	—	—	—	—	—	—	—	—	—	—	—	—
Manistee.....	181	100	81	—	181	100	81	—	—	—	—	—	—	—	—	—	—	—	—
Manitou.....	5	1	4	—	5	1	4	—	—	—	—	—	—	—	—	—	—	—	—
Marquette....	406	238	156	12	395	237	156	2	—	—	—	—	—	—	—	11	1	—	10
Mason.....	184	93	91	—	173	83	90	—	2	2	—	—	9	8	1	—	—	—	—
Mecosta.....	297	163	134	—	293	163	130	—	1	1	—	—	3	3	—	—	—	—	—
Menominee....	150	95	54	1	143	92	50	1	—	—	—	—	2	1	1	—	5	2	3
Midland.....	83	46	36	1	82	45	36	1	—	—	—	—	1	1	—	—	—	—	—
Missaukee....	27	15	11	1	27	15	11	1	—	—	—	—	—	—	—	—	—	—	—
Monroe.....	346	170	175	1	345	170	174	1	—	—	—	—	—	—	—	1	1	—	—
Montcalm....	396	223	172	1	393	223	170	—	1	1	1	1	—	—	—	1	—	—	1
Montmorency	5	3	2	—	5	3	2	—	—	—	—	—	—	—	—	—	—	—	—
Muskegon.....	462	245	214	3	460	244	214	2	1	1	—	—	—	—	—	1	—	—	1
Newaygo.....	165	83	82	—	163	83	80	—	—	—	—	—	2	2	—	—	—	—	—
Oakland.....	390	213	174	3	382	210	170	2	6	3	3	1	1	—	—	1	—	—	1
Oceana.....	166	78	88	—	158	76	82	—	—	—	—	—	8	2	6	—	—	—	—
Ogemaw.....	25	13	12	—	25	13	12	—	—	—	—	—	—	—	—	—	—	—	—
Ontonagon....	19	15	4	—	19	15	4	—	—	—	—	—	—	—	—	—	—	—	—
Osceola.....	127	61	66	—	127	61	66	—	—	—	—	—	—	—	—	—	—	—	—
Oscoda.....	11	5	6	—	10	5	5	—	1	1	—	—	—	—	—	—	—	—	—
Otsego.....	23	12	11	—	23	12	11	—	—	—	—	—	—	—	—	—	—	—	—
Ottawa.....	420	241	175	4	408	231	174	3	6	6	1	1	4	3	1	1	—	—	1
Sauquoie Isle.	38	22	16	—	38	22	16	—	—	—	—	—	—	—	—	—	—	—	—

o returns from county clerk to State Department.



TABLE XII.—CONTINUED.—*Deaths by Counties, by Color, and by Sex.*

COUNTIES.	ALL COLORS,—1881.				WHITE.				BLACK.			MU-LATTO.			INDIAN.			UNKNOWN.				
	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.
Roscommon.	12	8	4	..	12	8	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Saginaw.....	957	557	400	..	935	543	392	..	4	3	1	3	2	1	14	8	6	..	1	1	..	..
Sanilac.....	298	146	152	..	298	146	152	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Schoolcraft...	14	9	5	..	14	9	5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Shiawassee ..	254	119	131	4	253	119	131	3	..	..	..	..	..	..	..	..	..	1	..	..	1	..
St. Clair.....	464	238	220	6	464	238	220	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..
St. Joseph....	232	120	112	..	226	118	108	..	4	1	3	2	1	1	..	..	..	..	..	..	..	..
Tuscola.....	314	177	167	..	312	175	167	..	..	..	..	..	..	..	2	2	..	..	..	..	..	..
Van Buren...	310	158	151	1	299	152	146	1	5	3	2	6	3	3	..	..	..	..	..	..	..	..
Washtenaw...	405	223	182	..	400	220	180	..	4	2	2	1	1	..	..	..	..	..	..	..	..	..
Wayne.....	2,229	1,232	995	2	2,169	1,196	973	..	47	29	18	7	6	1	4	1	3	..	2	..	..	2
Wexford.....	73	35	38	..	72	35	37	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..

## DEATHS OF NATIVE AND FOREIGN-BORN INHABITANTS.

As shown in Exhibit 6, the average per cent. of deaths to the whole number of deaths, of the native-born population, for ten years ending with 1880, was 799.2 in 1,000. The per cent. of deaths among the native-born in 1881 was slightly greater. Table XIII. exhibits details by number and sex for the State and counties.

**EXHIBIT 6.**—*Nativity of Persons Returned as having Died in Michigan during each of the Years 1877 to 1881, inclusive, showing the Number and the Per Cent. which the Native and the Foreign-born Decedents are of the Total of All Nativities, and the Average Number and Per Cent. for the Ten Years ending with 1880.*

NATIVITY OF DECEDENTS.	DEATHS, 1877.		DEATHS, 1878.		DEATHS, 1879.		DEATHS, 1880.		DEATHS, 1881.		Av. for 10 yrs. ending with 1880.	
	Number.	Per Ct. of Total.	Number.	Per Ct. of Total.	Number.	Per Ct. of Total.	Number.	Per Ct. of Total.	Number.	Per Ct. of Total.	Number.	Per Ct. of Total.
All Nativities.....	12,919	100.00	12,766	100.00	14,407	100.00	16,102	100.00	19,238	100.00	13,062	100.00
Native.....	10,306	79.77	10,183	79.77	11,495	79.79	12,572	78.08	15,402	80.06	10,439	79.92
Foreign.....	2,251	17.42	2,237	17.52	2,456	17.06	2,962	18.40	3,407	17.71	2,231	17.08
Unknown.....	363	2.81	346	2.71	454	3.15	568	3.52	429	2.23	392	3.00

TABLE XIII.—*Exhibiting, by Number and by Sex, for the State and Counties, the Nativity of all Persons Returned as having Died in Michigan during the Year ending December 31, 1881.*

STATE AND COUNTIES.	ALL NATIVITIES, 1881.				NATIVE.				FOREIGN.				UNKNOWN.			
	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.
State.....	19,238	10,263	8,910	65	15,402	8,027	7,316	59	3,407	1,986	1,420	1	429	250	174	5
Alcona.....	12	7	5	—	9	5	4	—	2	2	—	—	1	—	1	—
Allegan.....	412	215	197	—	342	170	172	—	55	38	17	—	15	7	8	—
Alpena.....	114	74	40	—	84	55	29	—	27	16	11	—	3	3	—	—
Antrim.....	75	35	40	—	59	26	33	—	15	9	6	—	1	—	1	—
Baraga.....	18	7	11	—	14	5	9	—	4	2	2	—	—	—	—	—
Barry.....	290	126	164	—	266	114	152	—	22	12	10	—	2	—	2	—
Bay.....	541	305	236	—	409	223	186	—	116	71	45	—	16	11	5	—
Benzie.....	65	33	32	—	47	21	26	—	6	2	4	—	12	10	2	—
Berrien.....	807	150	156	1	246	118	127	1	37	20	17	—	24	12	12	—
Branch.....	255	157	98	—	236	144	92	—	13	10	3	—	6	3	3	—
Calhoun.....	426	223	196	7	365	193	165	7	49	24	25	—	12	6	6	—
Cass.....	176	85	91	—	164	79	85	—	11	6	5	—	1	—	1	—
Charlevoix..	54	27	27	—	47	23	24	—	6	3	3	—	1	1	—	—
Cheboygan..	109	59	50	—	84	42	42	—	22	16	6	—	3	1	2	—
Chippewa...	10	5	5	—	7	4	3	—	2	—	2	—	1	1	—	—
Clare.....	66	33	33	—	53	25	28	—	11	7	4	—	2	1	1	—
Clinton.....	276	131	145	—	240	114	126	—	29	16	13	—	7	1	6	—
Crawford...	16	7	9	—	15	6	9	—	1	1	—	—	—	—	—	—
Delta.....	83	45	34	4	66	36	30	—	13	9	4	—	4	—	—	4
Eaton.....	356	172	184	—	331	162	169	—	16	7	9	—	9	3	6	—
Emmet.....	79	44	35	—	70	39	31	—	5	3	2	—	4	2	2	—
Genesee.....	409	208	201	—	335	169	166	—	60	31	29	—	14	8	6	—
Gladwin.....	10	5	4	1	6	2	3	1	4	3	1	—	—	—	—	—
Gr. Traverse	70	36	34	—	63	31	32	—	7	5	2	—	—	—	—	—
Gratiot.....	212	109	102	1	193	102	90	1	12	5	7	—	7	2	5	—
Hillsdale...	372	208	164	—	339	187	152	—	21	13	8	—	12	8	4	—
Houghton...	243	131	112	—	203	106	95	—	38	22	16	—	2	1	1	—
Huron.....	242	116	125	1	166	76	89	1	74	39	35	—	2	1	1	—
Ingham.....	298	147	150	1	255	121	133	1	31	19	12	—	12	7	5	—
Ionia.....	300	154	145	1	265	134	130	1	32	19	13	—	3	1	2	—
Iosco.....	174	90	84	—	135	65	70	—	32	19	13	—	7	6	1	—
Isabella.....	176	91	85	—	140	70	70	—	36	21	15	—	—	—	—	—

TABLE XIII.—CONTINUED.—*Deaths by Counties, Nativity, and Sex.*

COUNTIES.	ALL NATIVITIES, 1881.				NATIVE.				FOREIGN.				UNKNOWN.			
	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.
Isle Royal. <sup>a</sup>																
Jackson.....	407	225	182		347	183	164		49	33	16		11	9	2	
Kalamazoo..	437	221	216		360	175	185		64	36	28		13	10	3	
Kalkaska....	38	20	18		32	17	15		3	2	1		3	1	2	
Kent.....	1,022	549	472	1	851	442	408	1	156	98	58		15	9	6	
Keweenaw..	122	67	51	4	80	50	33	4	28	14	14		5	3	2	
Lake.....	48	29	19		40	23	17		6	4	2		2	2		
Lapeer.....	303	154	151	1	253	128	124	1	52	26	26		1		1	
Leelanaw...	96	56	39	1	87	49	37	1	9	7	2					
Lenawee....	415	216	198	1	356	178	177	1	49	30	19		10	8	2	
Livingston..	259	137	122		223	114	109		35	22	13		1	1		
Mackinac....	19	10	9		10	3	7		9	7	2					
Macomb.....	305	187	118		235	147	88		68	40	28		2		2	
Manistee....	181	100	81		137	74	63		40	23	17		4	3	1	
Manitou.....	5	1	4		2		2		3	1	2					
Marquette...	406	238	156	12	295	163	120	12	100	74	35		2	1	1	
Mason.....	184	93	91		160	82	78		23	10	13		1	1		
Mecosta.....	297	163	134		239	127	112		53	33	20		5	3	2	
Menominee..	150	95	54	1	101	59	41	1	37	31	6		12	5	7	
Midland.....	83	46	36	1	63	33	29	1	12	9	3		8	4	4	
Missaukee...	27	15	11	1	20	11	8	1	6	3	3		1	1		
Monroe.....	346	170	175	1	275	131	143	1	71	39	32					
Montcalm...	396	223	172	1	351	190	160	1	36	26	10		9	7	2	
Montmorency.	5	3	2		2	2			3	1	2					
Muskegon...	462	245	214	3	325	168	155	2	118	69	49		19	8	10	1
Newaygo....	165	83	82		141	73	68		21	8	13		3	2	1	
Oakland.....	390	213	174	3	314	171	140	3	64	36	28		12	6	6	
Oceana.....	166	78	88		150	70	80		11	5	6		5	3	2	
Ogemaw.....	25	13	12		19	10	8		5	2	3		2	1	1	
Ontonagon..	19	15	4		12	9	3		7	6	1					
Oscoda.....	127	61	66		98	46	52		20	10	10		9	5	4	
Oscoda.....	11	5	6		9	5	4		2		2					
Otsego.....	23	12	11		19	9	10		3	2	1		1	1		
Ottawa.....	420	241	175	4	323	184	136	3	87	49	37	1	10	8	2	

<sup>a</sup> No returns from the county clerk.



TABLE XIII.—CONTINUED.—*Deaths by Counties, Nativity, and Sex.*

COUNTIES.	ALL NATIVITIES, 1881.				NATIVE.				FOREIGN.				UNKNOWN.			
	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.	Total.	Males.	Females.	Unknown.
Presque I...	38	22	16	----	26	16	10	----	11	6	5	----	1	----	1	----
Roscommon.	12	8	4	----	10	6	4	----	2	2	----	----	----	----	----	----
Saginaw.....	957	557	400	----	689	385	304	----	255	162	93	----	13	10	3	----
Sanilac.....	298	146	152	----	205	90	106	----	92	46	46	----	1	1	----	----
Schoolcraft.	14	9	5	----	6	3	3	----	2	1	1	----	6	5	1	----
Shiawassee..	254	119	131	4	212	96	112	4	37	22	15	----	5	1	4	----
St. Clair.....	464	238	220	6	312	160	146	6	151	78	73	----	1	----	1	----
St. Joseph....	232	120	112	----	198	100	98	----	29	16	13	----	5	4	1	----
Tuscola.....	344	177	167	----	295	155	140	----	48	22	26	----	1	----	1	----
Van Buren...	310	158	151	1	286	145	140	1	14	7	7	----	10	6	4	----
Washtenaw..	405	223	182	----	308	162	146	----	88	54	34	----	9	7	2	----
Wayne.....	2,229	1,232	995	2	1,604	876	726	2	598	338	260	----	27	18	9	----
Wexford.....	73	35	38	----	60	29	31	----	12	6	6	----	1	----	1	----

## CAUSES OF DEATH, 1881.

"In statistical researches," says Quetelet, "our object is generally to discover the causes which influence social facts." None of these causes are of so great importance as those that relate to the influence of deaths upon our population. It now remains for us to consider the specified, or particular, causes of deaths classified according to the plan usually adopted. The classes of causes which occasioned the greatest number of deaths in 1881 may be compared in Table XIV. with those of each preceding year from 1877 to 1881, inclusive. The average number of deaths for the ten years, ending with 1880, from each of the classes of causes is also here shown.

Exhibit 7 shows the number of deaths in each month of the year 1881 from all causes and from each class of causes.

## CAUSES OF DEATH, DR. FARR'S CLASSIFICATION.

The per cent. of deaths from zymotic diseases was much greater in 1881 than in any preceding year, being 35.31, while the average for ten years was only 27.30. The per cent. of deaths from local diseases occurred next in order, but was somewhat less than the average. The per cents of deaths from constitutional and developmental diseases, and from violent deaths, were less than the average for ten years.

**TABLE XIV.**—*Number of Deaths Returned as having occurred in Michigan from All Causes, and from each Class of Causes, and the Per Cent. of Deaths from each Class of Causes to Deaths from All Causes, for each of the Years 1877 to 1881, inclusive; also the Average Number and Per Cent. for the Ten Years 1871-1880.*

CAUSES OF DEATH, CLASSES.	1877.		1878.		1879.		1880.		1881.		AVERAGE FOR TEN YEARS, END- ING WITH 1880.	
	Num- ber.	Per Ct. of Total.	Num- ber.	Per Ct. of Total.	Num- ber.	Per Ct. of Total.	Num- ber.	Per Ct. of Total.	Num- ber.	Per Ct. of Total.	Num- ber.	Per Ct. of Total.
All Causes.....	12,919	100.00	12,766	100.00	14,407	100.00	16,102	100.00	19,238	100.00	13,062	100.00
I.—Zymotic.....	3,319	25.69	3,121	24.45	4,177	28.99	4,825	29.97	6,793	35.31	3,566	27.30
II.—Constitutional.	2,454	19.00	2,290	17.94	2,343	16.26	2,516	15.81	2,734	14.21	2,249	17.22
III.—Local Diseases	3,506	27.14	3,491	27.27	3,913	27.20	4,492	27.90	5,011	26.05	3,725	28.52
IV.—Developmental	1,527	11.82	1,825	14.29	1,802	12.51	1,861	11.56	2,033	10.57	1,431	10.96
V.—Violent Deaths.	634	5.06	691	5.41	697	4.84	875	5.43	966	5.02	673	5.15
Unknown and Un- classified.....	1,459	11.29	1,358	10.64	1,470	10.20	1,503	9.33	1,701	8.84	1,417	10.85

**EXHIBIT 7.**—*By Months, the Number of Deaths Returned as having Occurred in Michigan from All Causes and from each Class of Causes during the year 1881.*

CAUSES OF DEATH, CLASSES.	YEAR, 1881.	MONTHS OF DEATHS,—1881.											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
All Causes.....	19,238	1065	1078	1315	1427	1,457	1,276	1,701	2,246	2,301	1,941	1,617	1,748
I.—Zymotic.....	6,793	328	290	330	303	417	398	670	1,021	955	830	634	570
II.—Constitutional.	2,734	160	180	227	274	247	203	233	242	221	251	227	261
III.—Local Diseases	5,011	323	366	432	454	432	335	383	477	488	444	404	462
IV.—Developmental	2,033	119	140	166	137	164	163	161	219	202	166	156	231
V.—Violent Deaths.	966	37	35	36	70	68	54	105	97	225	81	69	81
Unknown and Un- classified.....	1,701	100	97	124	129	129	123	149	190	209	169	127	143

DEATHS IN 1881, GROUPED BY PART OF BODY DISEASED.

stand first in the order of groups presented in Exhibit 8, although the per cent. of deaths from in 1881, than in any year represented in the exhibit. Deaths from diseases of the bowels show a per .. in any preceding year.

8.—Order of Succession of Seven Groups of Deaths Returned as having occurred in Michigan for each Years 1878 to 1881, inclusive,—Number of Deaths from each Group of Causes, and Per Cent. of Deaths from each Group of Causes to the Deaths from All Causes.

ORDER.	1876.			1877.			1878.			1879.			1880.			1881.		
	DISEASES OF	Num-ber.	Per Ct. to All Causes.	DISEASES OF	Num-ber.	Per Ct. to All Causes.	DISEASES OF	Num-ber.	Per Ct. to All Causes.	DISEASES OF	Num-ber.	Per Ct. to All Causes.	DISEASES OF	Num-ber.	Per Ct. to All Causes.	DISEASES OF	Num-ber.	Per Ct. to All Causes.
....	All Causes.	12,576	100.00	All Causes.	12,919	100.00	All Causes.	12,766	100.00	All Causes.	14,407	100.00	All Causes.	16,102	100.00	All Causes.	19,938	100.00
1	Lungs...	2,763	21.80	Lungs...	2,584	20.00	Lungs...	2,609	20.44	Lungs...	2,945	20.44	Lungs...	3,887	21.03	Lungs...	3,366	17.50
2	Bowels...	1,633	12.98	Bowels...	1,702	13.17	Bowels...	1,440	11.26	Throat...	1,803	12.51	Bowels...	1,962	12.18	Bowels...	3,102	16.12
3	Brain....	1,549	12.31	Brain....	1,592	12.32	Brain....	1,947	9.77	Brain....	1,466	10.18	Throat...	1,899	11.79	Throat...	2,403	12.98
4	Throat...	541	4.30	Throat...	731	6.05	Throat...	1,160	9.09	Bowels...	1,454	9.88	Brain...	1,709	10.61	Brain....	2,043	10.62
5	Heart....	403	3.22	Heart...	460	3.56	Heart...	452	3.54	Heart...	549	3.81	Heart...	570	3.54	Heart...	646	3.36
				Liver....	126	.98	Liver....	143	1.12	Liver....	121	.84	Kidneys.	154	.96	Kidneys.	241	1.25
										Kidneys.	113	.78	Liver....	119	.74	Liver....	143	.74
1-5	5 Groups	6,381	54.72	6 Groups	7,245	56.08	6 Groups	7,031	55.23	7 Groups	8,421	58.45	7 Groups	9,800	60.50	7 Groups	12,034	62.55

# POPULATION OF MICHIGAN, 1881.

Upper Michigan.	North		West.	South		East.
	western.	central.		central.	eastern.	
aga.	Benzie.	Alcona.	Kent.	Clare.	Isa.	Isa.
ppewa. <sup>a</sup>	Gr. Traverse. <sup>g</sup>	Alpena. <sup>1</sup>	Lake.	Gladiwin. <sup>1</sup>	Huron.	Gladiwin.
Delta.	Leelanaw.	Iosco.	Mason.	Isabella.	Lapeer.	Lapeer.
Houghton.	Manistee.	Montmorency.	Muskegon.	Mecosta.	Saginaw.	Genesee.
Ile Royal. <sup>b</sup>	Manitou.	Ogemaw. <sup>m</sup>	Newaygo. <sup>n</sup>	Midland.	Sanilac.	Gratiot.
Keweenaw.	Misauke.	Oscoda.	Oceana. <sup>o</sup>	Roscommon.	St. Clair.	Ingham.
Mackinac. <sup>c</sup>	Wexford. <sup>h</sup>	Presque I.	Osceola.		Tuscola.	Ionia.
Marquette. <sup>d</sup>			Ottawa.			Livingston.
Menominee.						Montcalm. <sup>q</sup>
Ontonagon. <sup>e</sup>						Shiawassee.
Schoolcraft. <sup>f</sup>						

No returns of deaths from the following townships:  
<sup>a</sup> Detroit. <sup>g</sup> Hendricks. <sup>d</sup> Champion, Crystal Falls, Iron River, and Richmond. <sup>e</sup> Carp Lake and  
 Rockland. <sup>f</sup> No returns from the county. <sup>h</sup> East Bay, Grant, and Paradise. <sup>i</sup> Henderson and South Branch. <sup>j</sup> Eveline and Munon.  
<sup>k</sup> Garfield and Oliver. <sup>l</sup> Chritton and Livingston. <sup>m</sup> Green and Oshtemo. <sup>n</sup> Cumming, Damon, and West Branch. <sup>o</sup> Grant. <sup>p</sup> Grou. <sup>q</sup> Otto.



# DEATHS BY CLASSES—GEOGRAPHICAL DIVISIONS OF STATE. 163

## DEATHS, 1881, BY CLASSES OF CAUSES, BY DIVISIONS OF THE STATE.

For the convenience of studying what relation each class of causes of deaths had to each of the eleven geographical divisions of the State, reference may be made to Table XV. The diseases included in each class may be found in Table XVI., following.

The least per cent. of all deaths, in 1881, to population, occurred in the South-western division; the greatest per cent. occurred in the Northern-Central. The counties which are included in each division may be seen in Exhibit J.

TABLE XV.—*Exhibiting for the State and for each of the Eleven Geographical Divisions of the State, the Number of Deaths, the Per Cent. of Deaths in 1881 to Population in 1880, and the Per Cent. of Deaths for each Division to Total Deaths for the State during the Year 1881; also, the Per Cent. of Deaths from each Class of Causes to Deaths from All Causes.*

STATE AND GEOGRAPHICAL DIVISIONS.	Popula- tion June 1. 1880, Rep- resented by Deaths in 1881.	DEATHS REPORTED, 1881.		Per Ct. of all Deaths in 1881 to Pop- ulation in 1880.	PER CENT. OF DEATHS FROM EACH CLASS OF CAUSES TO DEATHS FROM ALL CAUSES, BY GEOGRAPHICAL DIVISIONS.					
		Num- ber.	Per Ct. of Total.		Class I. Zymotic Diseases.	Class II. Consti- tutional Diseases.	Class III. Local Diseases.	Class IV. Develop- mental Diseases.	Class V. Violent Deaths.	Unk. and Un- classi- fied.
STATE.....	1,621,927	19,233	100.00	1.19	35.31	14.21	26.05	10.57	5.02	8.84
Upper-Peninsular.	80,663	1,084	5.63	1.34	36.62	7.38	18.63	13.38	9.23	14.76
North-western.....	38,414	517	2.69	1.35	45.65	10.06	21.47	8.90	5.22	8.70
Northern.....	27,999	394	2.05	1.41	35.03	11.93	23.10	8.38	4.31	17.26
North-eastern.....	23,897	379	1.97	1.50	40.63	7.92	20.05	8.97	5.01	17.41
Western.....	182,767	2,594	13.48	1.42	45.68	11.99	21.09	7.67	3.47	10.10
Northern-Central..	89,282	644	3.35	1.64	48.29	9.01	19.88	6.99	4.35	11.49
Bay and Eastern..	245,679	3,152	16.38	1.28	35.31	12.18	24.71	11.33	8.22	8.25
Central.....	293,822	3,050	15.85	1.04	36.10	16.03	27.11	8.52	3.74	8.49
South-western....	123,666	1,205	6.26	.97	29.71	17.51	27.80	11.54	4.40	9.05
Southern-Central..	292,306	2,949	15.33	1.01	28.18	16.95	31.60	12.34	4.10	6.82
South-eastern.....	273,232	3,270	17.00	1.20	29.63	17.49	30.06	12.57	4.22	6.02



III.—1. Diseases of Nervous System.....	1,336	2	44	8	8	1	21	48	6	34	26	47	17	4	6	5	23	1	3	44	4	49	1	9	27	
2. Dis. of Organs of Circulation.....	623	1	13	4	1	1	6	13	...	6	14	18	7	1	3	...	1	11	...	...	14	1	8	1	1	8
3. Diseases of Respiratory Organs	1,260	...	19	5	4	1	21	33	1	23	20	24	15	9	11	...	5	22	...	3	29	3	27	1	3	12
4. Diseases of Digestive Organs..	893	...	17	6	2	2	9	21	2	14	14	19	16	5	4	...	...	12	...	12	...	23	2	2	10	
5. Diseases of Urinary Organs....	271	...	12	1	1	...	2	6	4	6	8	12	4	2	2	...	3	...	...	5	1	5	...	1	...	
6. Diseases of Generative Organs..	21	...	...	...	...	...	...	...	...	1	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	
7. Dis. of Organs of Locomotion..	9	...	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	
8. Dis. of Integumentary System.	83	...	1	2	2	...	...	3	...	...	2	5	2	...	...	...	...	...	...	5	...	3	...	...	...	
IV.—1. Developmental Dis. of Children	892	1	23	9	4	1	10	25	6	10	10	15	8	1	6	3	1	6	...	3	10	1	11	1	6	10
2. Developmental Dis. of Women.	213	...	6	2	...	...	4	8	...	3	4	6	1	1	...	...	1	4	...	...	3	2	4	...	1	3
3. Developm't Dis. of Old People.	725	...	30	1	1	...	9	4	...	16	15	29	10	3	...	1	2	9	...	10	4	17	...	1	7	
4. Diseases of Nutrition.....	228	...	2	...	...	...	1	14	2	3	3	4	...	...	1	...	3	...	...	1	3	1	6	...	7	
V.—1. Accident or Negligence .....	570	...	7	7	2	2	3	14	8	12	6	11	...	3	3	...	3	4	2	4	4	3	13	...	2	
2. Battle.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
3. Homicide .....	14	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	
4. Suicide .....	57	...	...	...	...	...	...	1	...	...	3	5	...	...	...	...	1	...	...	2	...	1	...	...	...	
5. Execution .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
6. Violent Deaths.....	325	...	7	...	...	...	5	11	...	6	4	4	2	1	1	...	2	2	...	4	5	1	3	2	...	3
CLASS I.—ZYMOTIC.....	6,793	4	128	35	33	2	140	238	26	87	54	130	40	13	42	2	28	111	11	19	104	22	136	1	33	62
I.—ORDER 1. Miasmatic.....	6,763	4	126	35	33	2	139	237	26	84	54	119	38	13	42	2	28	111	11	19	102	22	136	1	33	62
1. Small-pox.....	85	...	...	...	13	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...
2. Measles .....	256	...	4	2	...	...	8	9	...	3	1	2	1	...	7	...	4	11	...	...	4	...	4	...	...	...
3. Scarlatina.....	384	...	7	...	...	...	2	7	...	11	...	7	3	...	...	...	...	...	...	3	...	2	...	...	...	...
4. Diphtheria.....	2,063	3	36	3	9	...	62	112	1	7	4	13	...	1	10	...	13	49	5	10	36	10	56	...	19	23
5. Quinsy .....	27	...	...	1	...	...	...	...	...	1	1	...	...	1	...	...	...	...	...	...	1	...	1	...	...	...
6. Group.....	380	...	4	4	...	...	4	10	1	1	4	3	2	...	3	...	1	6	...	4	9	6	...	1	7	...



### CAUSES OF DEATH, CLASSIFIED.

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3. Hydrophobia.....	2																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																		</
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III.—1. Diseases of Nervous System.....	23	38	10	25	34	8	22	66	39	5	90	9	8	36	2	45	31	30	16	27	7	21	11	
2. Diseases of Organs of Circulation.....	22	4	1	7	8	3	2	20	14	2	28	1	12	1	27	12	15	6	1	5	1	2	---	
3. Diseases of Respiratory Organs.....	29	11	19	16	17	4	11	11	33	5	56	17	4	26	1	29	20	2	14	16	21	7	19	6
4. Diseases of Digestive Organs.....	14	4	4	10	16	3	7	24	15	---	32	7	1	15	5	17	9	1	17	10	11	2	7	3
5. Diseases of Urinary Organs.....	12	2	---	6	5	2	1	9	16	---	13	4	---	---	1	13	11	1	5	---	1	3	1	---
6. Diseases of Generative Organs.....	1	2	---	1	---	---	---	---	1	---	2	---	---	---	---	---	1	---	---	---	---	---	---	---
7. Diseases of Organs of Locomotion.....	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	2	---	---	---	---	---	---	---	---
8. Dis. of Integumentary System.....	3	---	1	2	2	---	---	2	1	---	3	1	---	---	---	5	1	2	---	---	1	1	---	---
IV.—1. Developmental Dis. of Children.....	9	29	9	8	13	7	5	14	13	2	32	6	---	14	2	10	12	---	17	8	30	2	5	6
2. Developmental Dis. of Women.....	8	---	---	3	3	6	3	3	4	3	7	1	---	1	5	5	---	1	3	1	4	1	3	2
3. Developmental Dis. of Old People.....	32	5	8	13	12	2	7	20	22	---	27	1	---	10	2	31	10	---	14	2	1	6	5	2
4. Diseases of Nutrition.....	5	3	1	---	1	---	---	2	6	---	14	---	---	4	2	2	3	2	3	1	2	34	1	---
V.—1. Accident or Negligence.....	6	7	29	4	9	3	2	10	5	---	15	1	5	6	1	5	2	1	9	7	---	4	3	2
2. Battle.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
3. Homicide.....	---	---	---	---	---	---	---	---	---	---	1	---	---	---	---	---	---	---	---	---	---	---	---	---
4. Suicide.....	1	---	---	5	---	---	---	4	---	---	1	---	---	1	---	2	1	---	1	---	---	1	1	---
5. Execution.....	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---
6. Violent Deaths.....	5	5	2	3	3	4	4	8	3	1	6	4	2	1	1	6	3	1	6	6	40	1	4	17
CLASS I.—ZYMOTIC.....	105	78	64	104	114	96	66	134	177	10	509	49	22	120	60	86	79	7	103	74	172	12	188	57
I.—ORDER 1. Miasmatic.....	104	78	64	104	113	96	66	130	177	10	504	48	22	119	60	86	79	7	103	74	170	12	188	57
1. Small-pox.....	---	---	---	---	1	---	---	1	---	4	---	---	---	---	42	---	---	---	---	---	---	---	---	---
2. Measles.....	---	---	11	5	7	1	2	2	5	15	2	1	18	---	5	4	---	---	7	---	19	2	2	2
3. Scarlatina.....	---	9	10	2	1	14	---	11	---	58	20	---	7	---	3	4	2	---	---	---	---	---	---	---
4. Diphtheria.....	29	3	15	29	42	57	41	26	77	7	180	4	14	19	10	12	17	---	25	4	19	83	134	1
5. Quinsy.....	---	---	---	1	---	---	2	1	---	---	---	1	---	---	---	---	---	1	---	---	1	---	1	---
6. Croup.....	2	5	6	1	4	2	---	14	6	35	1	---	2	---	3	4	1	2	1	0	32	1	4	7

TABLE XVI.—CONTINUED.—Causes of Death, Classified.

CAUSES OF DEATH,—1881.

COUNTIES.—1881.

	Hillsdale.	Houghton.	Huron.	Ingham.	Ionia.	Iosco.	Isabella.	Lapeer Royal.	Jackson.	Kalamazoo.	Kalkaska.	Kent.	Keweenaw.	Lake.	Lapeer.	Leelanaw.	Lemawee.	Livingston.	Mackinac.	Macomb.	Manistee.	Manitou.	Marquette.	Mason.	Meosta.	Menominee
All Causes.....	372	243	242	298	300	174	176	407	437	38	1022	122	43	306	96	415	259	19	305	181	5	406	184	297	150	
Specified Causes.....	348	209	208	275	284	146	149	385	410	83	972	109	44	284	93	370	239	19	287	164	4	381	162	279	130	
Causes not Specified.....	24	34	34	23	16	28	27	22	27	5	50	13	4	22	3	45	20	18	17	1	25	22	18	20		
CLASSES.																										
I.—Zymotic Diseases.....	108	78	64	104	114	96	68	134	177	10	500	49	22	120	60	86	70	7	103	74	....	172	112	188	57	
II.—Constitutional Diseases.....	62	21	14	60	46	7	19	58	58	5	136	8	7	36	10	83	44	8	46	16	....	23	15	22	15	
III.—Local Diseases.....	114	61	35	73	83	20	43	182	122	12	921	39	8	89	10	138	85	4	83	48	1	65	21	51	19	
IV.—Developmental Diseases.....	54	37	18	24	29	15	15	39	45	5	80	8	....	29	11	48	25	8	37	12	3	74	9	10	10	
V.—Violent Deaths.....	12	12	71	12	12	7	6	22	8	1	23	5	7	8	2	13	6	2	16	13	....	44	5	7	20	
Unclassified.....	1	....	6	2	....	1	....	....	....	....	....	....	....	....	2	....	2	....	....	....	....	....	....	....	....	
ORDERS.																										
I.—1. Miasmatic Diseases.....	104	78	64	104	113	96	66	130	177	10	504	48	22	119	60	86	79	7	103	74	....	170	112	188	57	
2. Enthetic Diseases.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
3. Dietic Diseases.....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
4. Parasitic Diseases.....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	
II.—1. Diathetic Diseases.....	13	5	4	19	11	1	2	....	17	12	1	24	3	3	11	4	27	18	1	14	2	....	6	2	1	2
2. Tubercular Diseases.....	49	16	10	41	36	6	17	....	41	46	4	112	5	4	23	6	56	26	2	32	14	....	18	13	21	13





3. Hydrophobia.....																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
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[illegible]



1. { Ovarian Tumor.....	1	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
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III.—1. Dis. of Nervous System.	5	1	28	48	1	36	11	59	14	5	13	4	2	38	6	4	110	13	—	35	30	2	22	21	51	300	9	
2. Dis. of Org. of Circulat'n	1	1	12	7	—	7	6	15	7	3	3	1	1	8	—	—	38	13	—	6	14	12	12	11	24	94	—	
3. Dis. of Respir'y Organs.	2	—	27	23	—	30	12	32	4	1	1	0	—	25	3	—	74	12	—	22	52	17	21	33	36	122	5	
4. Dis. of Digestive Organs	4	3	20	6	1	21	—	25	5	—	1	8	—	14	1	—	44	7	1	11	27	13	10	14	22	112	2	
5. Dis. of Urinary Organs..	2	—	—	4	—	3	1	8	—	—	—	—	—	6	—	—	8	5	—	6	5	4	1	4	10	24	1	
6. Dis. of Gen'tive Organs.	—	—	1	—	—	—	—	2	1	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	3	—		
7. Dis. of Org's of Locom'n	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2	—		
8. Dis. of Integ'r'y System	—	—	2	1	—	1	—	2	—	—	1	—	1	—	—	—	8	2	—	1	2	—	1	1	4	10	1	
IV.—1. Devel. Dis. of Children.	8	1	24	8	1	14	1	17	13	1	1	6	—	1	10	2	1	66	12	—	11	29	17	21	11	15	125	3
2. Devel. Dis. of Women..	1	—	9	3	—	2	1	4	5	1	—	5	—	—	2	—	—	11	4	—	4	10	4	4	1	23	—	
3. Devel. Dis. of Old People	2	—	14	12	—	4	2	20	6	—	—	2	—	2	19	1	30	7	1	9	30	9	13	12	39	88	—	
4. Diseases of Nutrition...	—	—	1	—	—	1	—	5	2	—	2	3	—	3	—	—	11	—	—	1	10	3	1	—	4	41	—	
V.—1. Accident or Negligence	1	1	12	15	—	6	1	0	5	1	1	3	—	—	17	4	2	29	64	2	3	13	9	3	12	11	54	—
2. Battle.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
3. Homicide.....	—	—	1	1	—	—	—	—	—	—	—	—	—	—	2	1	2	—	—	—	1	—	—	—	—	—	—	
4. Suicide.....	—	—	—	2	—	3	—	1	—	—	1	—	—	1	—	—	—	2	—	4	1	1	2	—	2	5	1	
5. Execution.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	
6. Violent Deaths.....	3	2	7	7	—	4	3	7	—	—	1	1	—	9	—	—	18	8	2	2	7	2	4	7	8	24	—	
CLASS I.—ZYMOTIC.....	24	9	105	165	2	213	86	87	67	5	7	43	5	7	133	7	4	313	81	4	88	147	63	150	103	92	674	34
I.—ORDER 1. Miasmatic.....	24	9	105	164	2	212	86	87	65	5	7	43	5	7	133	7	4	312	81	4	86	147	63	150	101	92	667	34
1. Small-pox.....	—	—	—	3	—	—	—	2	—	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—	—	12	—
2. Measles.....	—	—	—	12	—	12	—	2	5	1	—	6	—	1	—	—	10	5	—	12	2	—	8	1	—	8	1	
3. Scarlatina.....	—	—	—	1	4	—	31	7	8	3	—	—	—	27	—	—	16	8	—	8	11	3	—	1	3	61	3	
4. Diphtheria.....	10	1	12	69	—	47	41	13	27	—	1	9	2	2	83	3	103	23	—	12	39	12	85	29	16	130	9	
5. Quinsy.....	—	—	—	—	1	—	3	—	—	1	—	—	—	—	—	—	4	—	—	1	—	—	—	—	1	1	1	
6. Group.....	—	—	—	10	8	2	7	4	3	4	—	2	—	1	8	1	26	7	—	2	6	2	7	4	1	67	1	



[illegible]



TABLE XVI.—CONTINUED.—Causes of Death, Classified.

USES OF DEATH,—1881.	COUNTIES.—1881.															
	Midland.	Missaukee.	Monroe.	Montcalm.	Montmorency.	Muskegon.	Newaygo.	Oakland.	Ocean.	Ogemaw.	Oshtemo.	Oscoda.	Otsego.	Ottawa.	Presque Isle.	Hosconm.
Hydrocephalus.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
Ischemia.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
-LOCAL DISEASES...	14	5	90	89	2	107	31	143	31	9	2	34	5	4	91	10
1. Nervous System.	5	1	28	48	1	36	11	59	14	5	—	13	4	2	38	6
itis.....	2	14	6	—	—	12	6	—	3	3	—	2	1	13	—	—
xy.....	1	—	3	—	—	2	—	4	—	—	—	—	—	3	1	—
sis.....	—	—	5	—	1	1	—	23	3	—	—	—	—	3	—	—
f.....	—	—	—	—	—	—	—	2	1	—	—	—	—	—	—	—
ly.....	1	—	2	—	—	—	—	1	—	—	—	—	—	—	—	—
as.....	—	—	—	1	—	—	—	1	—	—	—	—	—	—	—	—
tions.....	—	—	2	5	—	12	—	5	2	—	—	2	—	9	5	3
a Disease.....	1	—	4	7	—	7	—	12	1	2	—	—	2	4	—	—
py of Brain.....	—	—	1	—	—	—	—	1	—	—	—	—	—	—	—	—
nal Fever.....	1	—	22	—	—	1	3	1	2	—	—	6	—	1	—	—
otted Fever.....	—	—	—	—	—	—	—	—	—	—	—	1	—	—	—	—
Meningitis.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2 Meningitis, Cerebro-sp'l.	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
A Meningitis, Spinal.....	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
2. Neuralgia.....	—	—	—	4	—	—	—	4	—	—	—	—	—	—	—	—

Age.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Sex.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Profession.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Occupation.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Education.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Marital Status.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Religion.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Place of Birth.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Time of Death.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Season.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Day of Week.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Month.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
Year.....	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100

### ORDER 3. Organs of Cir...

1. Pericarditis.....
2. Aneurism.....
3. Heart Disease.....
4. Emboli.....

### III.—ORDER 3. Respiratory Organs.

1. Epistaxis.....
2. Laryngitis.....
3. Bronchitis.....
4. Pleurisy.....
5. Pneumonia.....
6. Asthma.....
7. Lung Disease.....
8. Catarrh.....

### III.—ORDER 4. Digestive Organs.

1. Gastritis.....
2. Enteritis.....
3. Peritonitis.....
4. Ascites.....
5. Ulceration of Intestines.....
6. Hernia.....
7. Obstruction of Bowels.....
8. Intussusception.....



[illegible]





### CAUSES OF DEATH, CLASSIFIED.

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118	119	120	121	122	123	124	125	126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186	187	188	189	190	191	192	193	194	195	196	197	198	199	200	201	202	203	204	205	206	207	208	209	210	211	212	213	214	215	216	217	218	219	220	221	222	223	224	225	226	227	228	229	230	231	232	233	234	235	236	237	238	239	240	241	242	243	244	245	246	247	248	249	250	251	252	253	254	255	256	257	258	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	52
--	---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	----







**CAUSES OF DEATH, SPECIFIED.**

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**25-1881.**





**CAUSES OF DEATH, SPECIFIED.**

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	1840	1841	1842	1843	1844	1845	1846	1847	1848	1849	1850	1851	1852	1853	1854	1855	1856	1857	1858	1859	1860	1861	1862	1863	1864	1865	1866	1867	1868	1869	1870	1871	1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1956	1957	1958	1959	1960	1961	1962	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2
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**Includes 1 rupture of blood vessel in brain.**

**TABLE XVII.—CONTINUED.—Specified Causes of Death.**

[illegible]

[illegible]

TABLE XVII.—CONTINUED.—Specified Causes of Death.

[illegible]



[illegible]

• Includes 2 Teething, and Nervous Flts, L.

**Includes 1 "Hepatic Collc."**

**Includes 1 "Asiatic."**

1





**TABLE XVII.—CONTINUED.—Specified Causes of Death.**

[illegible]

**CAUSES OF DEATH, SPECIFIED.**

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[illegible]





**CAUSES OF DEATH, SPECIFIED.**

[illegible]



[illegible]

Includes 2 Teething, and Nervous Fits, 1.

Includes 1 "Hepatic Colic."

**Includes 1 "Asiatic."**









**CAUSES OF DEATH, SPECIFIED.**

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[illegible]







TABLE XVII.—CONTINUED.—Specified Causes of Death.

SEX.		MONTHS, 1881.												YEARS.					CAUSES OF DEATH.	AGES IN PERIODS OF YEARS — 1881.																			
		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Unknown.	1881.	1880.	1879.	1878.		1877.	1876.	Under 5.	5 to 10.	10 to 15.	15 to 20.	20 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 to 75.	75 to 80.	80 and over.	Unknown.
Females	2	1	4	2	3	4	6	11	14	4	6	..	57	13	6	4	3	3	3	Fever, Malarial	14	5	2	4	4	6	1	3	1	4	..	3	5	..	2	1	..	..	80 and over.
Females	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	Fever, Menstrual	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Females	1	..	..	1	1	..	..	..	..	..	1	..	3	..	1	..	..	..	1	Fever, Milk	..	..	..	..	2	..	..	..	..	1	..	..	..	..	..	..	..	..	
Males	1	..	..	..	..	..	..	..	..	1	..	..	2	1	..	..	..	..	..	Fever, Mountain	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	
Total	..	..	..	..	..	..	..	..	..	1	..	..	2	8	5	..	..	3	9	Fever, Nervous	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..		
Males	..	..	..	..	..	..	..	..	..	..	..	..	1	5	2	..	..	..	6	" "	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Females	..	..	..	..	..	..	..	..	..	..	..	..	1	3	3	..	..	3	3	" "	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..		
Total	..	..	..	..	..	..	..	..	..	1	..	..	9	13	4	9	6	13	13	Fever, Remittent	5	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	
Males	..	..	..	..	..	..	..	..	..	1	..	..	5	6	3	4	4	7	..	" "	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Females	..	..	..	..	..	..	..	..	..	..	..	..	4	7	1	5	2	6	..	" "	1	1	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..		
Total	1	1	1	1	1	1	1	1	1	1	1	1	10	9	4	6	4	7	7	Fever, Rheumatic	3	2	1	..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Males	..	..	..	..	..	..	..	..	..	..	..	..	7	3	3	2	2	3	..	" "	..	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
Females	1	1	1	1	1	1	1	1	1	1	1	1	3	6	1	4	2	4	..	" "	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Total	5	4	11	19	11	13	17	13	14	10	8	..	135	71	47	63	73	73	73	Fever, Spinal	72	24	17	5	6	2	3	1	4	..	..	..	..	..	..	..	..		
Males	2	3	6	10	5	10	9	7	5	2	..	..	72	35	21	25	35	35	..	" "	40	16	7	2	2	2	2	1	..	..	..	..	..	..	..	..	..		
Females	3	1	5	9	6	3	7	4	7	6	..	..	64	36	26	38	38	38	..	" "	32	8	10	3	4	2	1	1	3	..	..	..	..	..	..	..	..		
Total	1	..	2	1	1	3	1	1	1	1	1	1	9	1	1	1	..	4	1	Fever, Spotted	5	3	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	
Males	..	..	2	..	..	2	..	..	..	..	..	..	5	1	1	..	..	2	1	" "	4	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Females	1	..	..	1	1	1	..	..	..	..	..	..	4	..	..	..	..	2	..	" "	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..		
Total	20	15	23	34	27	35	43	39	450	178	149	108	1	884	513	397	329	446	426	Fever, Typhoid	88	64	73	150	133	101	53	37	31	26	31	26	15	17	13	7	12		
Males	13	9	14	21	14	23	26	49	79	83	93	67	..	431	255	190	176	231	232	" "	46	25	34	69	81	63	98	93	115	91	115	7	8	8	4	5	10		





## CAUSES OF DEATH, SPECIFIED.

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Total.....	1	4	5	7	11	5	3	0	4	5	9	8	68	74	84	87	77	62	Liver Disease.....	2	1	1	1	4	2	4	7	8	3	7	9	3	7	2	
Males.....	1	3	4	3	6	2	3	1	1	5	5	3	34	36	40	43	45	42	"	"	3	1	1	1	2	1	5	3	1	5	5	1	3	2	
Females..	1	1	1	4	5	1	3	3	4	4	4	5	34	38	44	44	32	20	"	"	6	1	2	2	2	2	2	2	4	2	4	2	4	2	
Total.....	1	1	1	1	2	2	2	2	2	2	2	2	7	8	4	5	11	12	Liver, Enlarg'd of.....	3	2	2	2	2	2	2	2	1	1	1	1	1	1	1	
Males.....	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	3	6	7	"	"	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Females..	1	1	1	1	1	1	1	1	1	1	1	1	5	3	2	2	5	5	"	"	2	1	1	1	1	1	1	1	1	1	1	1	1	1	
Males.....	1	1	1	1	1	1	1	1	1	1	1	1	11	11	8	10	6	7	Liver, Fatty Degen. of.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Total.....	1	2	2	1	1	2	1	1	1	1	1	1	11	11	8	10	6	7	Liver, Inflamm. of.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Males.....	1	2	1	1	1	1	1	1	1	1	1	1	7	9	6	6	4	2	"	"	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Females..	1	1	1	1	1	1	1	1	1	1	1	1	4	2	2	4	2	5	"	"	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Males.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Liver, Ossification of.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Liver, Rupture of.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Males.....	1	1	1	1	1	1	1	1	1	1	1	1	2	2	2	2	2	2	Liver, Scirrhus of.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	"	"	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Males.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Liver, Tumor on.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Liver, Ulcer. of.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Males.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	"	"	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Females..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Loss of Eye.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Males.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	Lumbago.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	"	"	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Total.....	1	1	1	1	2	2	2	2	2	2	2	2	6	3	3	6	3	4	Lungs, Abscess of.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Males.....	1	1	1	1	1	1	1	1	1	1	1	1	3	2	2	3	1	3	"	"	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Females..	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	3	2	1	"	"	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Males.....	1	1	1	1	1	1	1	1	1	1	1	1	3	1	1	3	2	1	Lungs, Apoplexy of.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Females..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	"	"	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Males.....	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	"	"	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Females..	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	"	"	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Total.....	12	13	24	26	9	6	9	9	17	18	15	13	171	215	176	180	139	192	Lung Disease.....	78	7	5	3	5	2	4	3	7	6	12	7	11	7	6	1
Males.....	5	10	13	17	4	4	2	5	7	8	7	7	89	112	107	97	82	110	"	"	42	2	3	2	2	1	1	2	3	4	8	3	7	5	4





**CAUSES OF DEATH, SPECIFIED.**

217

[illegible]



[illegible]

**Includes 1 Bursting of Blood-vessel.**



**CAUSES OF DEATH, SPECIFIED.**

221

[illegible]

**Includes 1 "Black" and 4 "Yellow."**





## CAUSES OF DEATH, SPECIFIED.

223

Females..	68	74	84	87	77	62	Liver Disease.....	9	1	1	4	2	4	4	7	3	3	7	0	3	7	2	2
Males .....	34	36	40	43	45	42	"	3	1	1	1	2	1	5	3	1	5	1	3	2	1	2	2
Females..	34	38	44	44	32	20	"	6			3	2	3	2	2	2	4	2	4				
Males .....	7	3	4	5	1	12	Liver, Enlarg't of.....	3					1	1	1	1	1						
Females ..	2	2	3	6	7	"	"	1															
Males .....	5	3	2	2	5	5	"	2															
Females ..							Liver, Fatty Degen. of.....																
Males .....	11	11	8	10	6	7	Liver, Inflamm. of.....	1				1		1		2	1	2	1	1			
Females ..	7	9	6	6	4	2	"																
Males .....	4	2	2	4	2	5	"	1						1		1	1	1	1				
Females ..							Liver, Ossification of.....																
Males .....							Liver, Rupture of.....																
Females ..	1	2					Liver, Scirrhus of.....															1	
Males .....							"																
Females ..							Liver, Tumor on.....																
Males .....							Liver, Ulcer. of.....																
Females ..	1	1	1	1	2	"	"																
Males .....							Loss of Eye.....																
Females ..							Lumbago.....																
Total.....	1	1	2	2	2	4	Lungs, Abscess of.....	1			1	1	1	1	1								
Males .....	1	1	1	1	1	3	"	1					1	1									
Females..	1	1	1	1	1	1	"																
Males .....							Lungs, Apoplexy of.....																
Females ..							"																
Total.....	12	13	24	26	9	6	Lung Disease.....	78	7	4	5	5	2	4	3	3	7	6	12	7	11	7	
Males .....	5	10	13	17	4	2	"	42	9	3	2	2		1	2	3	4	8	3	7	5	4	

TABLE XVII.—CONTINUED.—Specified Causes of Death.

[illegible]



TABLE XVII.—CONTINUED.—Specified Causes of Death.

[illegible]



**CAUSES OF DEATH, SPECIFIED.**

227

1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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<sup>a</sup> Includes Nervous Prostration, 12.    <sup>b</sup> Includes Morphine 2 and Laudanum 2.





TABLE XVII.—CONTINUED.—Specified Causes of Death.

[illegible]

**CAUSES OF DEATH, SPECIFIED.**

**235.**

Females ..	18	22	15	10	32	32	17	23	25	24	21	41	270	301	298	307	290	295	Still-born.	270
Unknown.	3	5	..	5	3	6	4	3	1	5	8	..	43	34	28	42	3	32	"	43
Females ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	Sting of Bee	..
Females ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Stomach, Contraction of	..
Total .....	2	2	1	2	3	2	5	..	2	20	15	22	22	20	22	20	20	20	Stomach Disease	7
Males .....	1	2	1	..	..	1	2	4	1	1	12	11	13	16	9	10	"	"	"	3
Females ..	1	..	1	2	2	1	..	1	1	8	4	9	6	11	10	..	..	..	"	4
Males .....	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	Stomach, Enlargement of	..
Total .....	1	2	3	3	4	4	7	4	3	44	30	32	30	20	22	20	22	22	Stomach, Inflamm.	8
Males .....	1	1	2	2	4	1	2	3	..	19	12	17	14	8	11	"	"	"	"	2
Females ..	1	2	2	1	3	5	1	3	3	25	18	15	16	12	8	"	"	"	"	6
Total .....	1	1	1	1	1	1	1	1	1	6	4	2	5	3	3	3	3	3	Stomach, Neuralgia of	1
Males .....	1	..	..	..	..	1	2	..	1	2	..	..	..	..	..	..	..	..	"	..
Females ..	1	1	1	1	1	1	..	..	4	4	1	5	3	3	"	"	"	"	"	1
Males .....	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	Stomach, Perforation of	..
Males .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	Stomach, Strain of	..
Total .....	1	2	2	4	1	1	..	13	9	8	7	11	7	7	7	7	7	7	Stomach, Ulceration of	4
Males .....	1	2	1	1	1	1	..	5	5	5	4	9	5	"	"	"	"	"	"	1
Females ..	..	..	2	2	1	..	..	8	4	3	3	2	2	"	"	"	"	"	"	2
Males .....	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	Stomatitis	..
Females ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	"	1
Males .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Stone in Bladder	..
Females ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	"	..
Total .....	1	1	1	1	1	1	1	1	1	6	6	6	9	5	7	7	7	7	Strangulation	6
Males .....	1	1	1	1	1	1	1	1	1	5	5	5	3	3	3	3	3	3	"	5
Females ..	..	..	..	..	..	..	..	..	..	1	1	1	6	2	4	..	..	..	"	1
Males .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Stricture of Intestines	..





## CAUSES OF DEATH, SPECIFIED.

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Total.....	4	2	7	8	2	6	1	4	2	8	6	3	1	49	16	6	4	5	Septicæmia.....	6	1	1	4	2	1	4	2	1	4	5	1	3	1		
Males.....	3	2	5	1	1	1	2	1	5	4	1	26	11	3	2	1	1	1	"	5	1	3	1	1	1	1	1	1	1	1	1	1	2		
Females..	1	2	2	1	5	1	2	1	3	2	1	23	5	3	4	3	4	4	"	1	1	1	8	3	1	1	2	1	1	2	1	1	1		
Males.....																		Shingles.....																	
Females..																		"		1															
Total.....	1													2		1		Shock.....													1	1	1		
Males.....														1		1		"														1			
Females..	1																	"																	
Females..																		Sickness of Mother.....																	
Males.....														1				Skin Disease.....		1															
Females..																		"																	
Total.....	2	4	7	5	3	1	2	33	25	82	3	6	6	102	76	102	76	Small-pox.....	23	10	8	5	5	7	4	8	3	3	4	1	1	1	1		
Males.....														3	4	51	43	"	10	4	4	3	4	5	3	5	1	1	1	3	1	1			
Females..	2	3	3	1	1	1	17	8		34	3	3	2	51	33	51	33	"	12	6	4	2	1	2	1	2	2	1	1	1	1	1			
Unknown..																		"	1																
Males.....																		Snake Bite.....		1															
Females..														2				Spasm of Glottis.....																	
Total.....																		1 Spuler Bite.....																	
Males.....																		Spina Bifida.....		1															
Females..														1				Spinal Irritation.....																	
Females..																		Spine, Concussion of.....																	
Males.....																		Spine, Curvature of.....																	
Females..																		73 Spine Disease.....																	
Total.....	5	7	6	11	14	7	19	0	20	16	13	7	134	68	79	72	81		<sup>b</sup>	72	16	10	6	4	4	2	3	2	1	2	3	1	4	1	2

<sup>a</sup> Includes Scarlet Rash, 5.    <sup>b</sup> Includes Potts's disease of the loins, 1.



15-10	20-29	30-39	40-49	50-59	60-69	70-79	80-89	90-99	100-109	110-119	120-129	130-139	140-149	150-159	160-169	170-179	180-189	190-199	200-209	210-219	220-229	230-239	240-249	250-259	260-269	270-279																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
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**CAUSES OF DEATH, SPECIFIED.**

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[illegible]



Exhibit B shows the specified causes of deaths returned and compiled as casualty.

EXHIBIT R.—*Deaths in Michigan in 1881, Compiled as Casually.*

CASUALTY,—CAUSES AS RETURNED.	Num-ber.	CASUALTY,—CAUSES AS RETURNED.	Num-ber.
Total number tabulated as Casualty in Table XVII.....	325	Drinking lye.....	2
Killed in mine.....	28	Thrown from a horse.....	4
Run over by wagon.....	4	Thrown from buggy.....	5
Killed by explosion of powder.....	12	Injuries received in a quarrel.....	1
Killed.....	6	Fell from lumber pile.....	1
Killed by a fall.....	13	Killed by a tree.....	2
Accidental explosion.....	2	Fright of mother by fire.....	1
Nitro-glycerine explosion.....	2	Inflammation caused by fall.....	1
Killed by falling gravel.....	2	Fell from barn.....	1
Fell from ladder.....	1	Fell from bridge.....	1
Accidentally shot.....	15	Killed by the falling of an elevator.....	1
Toy pistol.....	2	Injury to one of his limbs.....	1
Killed by accident.....	80	Accident, wound by pitchfork.....	1
Killed by rolling log.....	11	Accident by runaway.....	7
Kicked by a horse.....	9	Killed by a straw-cutter.....	1
Caught in shaft of mill.....	1	Dislocation of shoulder.....	1
Fell from mast of schooner.....	1	Killed by a fall at State Capitol.....	1
Accident in saw-mill.....	8	Accidental severing jugular vein.....	1
Fall from building.....	2	Fit, fell in fire and burned to death.....	1
Killed in mill.....	6	Crushed under a stone.....	2
Explosion of mill.....	1	Fell from wagon.....	4
Killed by engine.....	1	Killed in well.....	2
Fell in a vault.....	2	Thrown from mowing-machine.....	1
Fall of limb from tree.....	1	Injury of spine from fall.....	1
Accident, burned by gasoline.....	1	Jumping from cars.....	2
Fell and broke his back.....	1	Injury by machinery.....	1
Killed by a horse.....	4	Hooked by a cow.....	1
Killed by a mule.....	1	Falling down stairs.....	1
Thrown from bridge.....	1	Struck by locomotive.....	1
Boiler explosion.....	12	Hurt by a steer.....	1
Head crushed by timber.....	1	Accidentally shot himself.....	2
Run over by cars.....	3	Fall from a load of stalks.....	1
Killed in woods.....	2	Bled to death from a cut on falling against a wheel.....	1
Injury.....	4	Fell from a horse.....	1
Injured by falling in well.....			
Killed in lumber woods.....			



## EXHIBIT R.—CONTINUED.

CASUALTY,—CAUSES AS RETURNED.	Num-ber.	CASUALTY,—CAUSES AS RETURNED.	Num-ber.
Blow on the head.....	1	Crushed to death, R. R. ....	1
Hurt in the head years ago—brain injury	1	Fell in cold water.....	1
Fell out of swing and broke neck .....	1	River accident.....	1
Strain.....	1	Killed by a ball.....	1
Accidental fall from tree.....	2	Fell from our dock.....	1
Accident in stove-mill.....	1	Falling on a nail .....	1
Injury of back .....	1	Killed in steamboat explosion.....	1
Accident, fell down stairs .....	1	Fell from a load of hay and killed.....	1
Killed, broke his neck.....	1	Hit with stone by boy with sling .....	1
Killed by block thrown from saw.....	2		

EXHIBIT 9.—*Certain facts concerning Persons Returned as having died by Suicide in Michigan during the Year 1881.*

DATE OF DEATH.		Age.	Condi-tion.	Sex.	Color.	Occupation.	Nativity.	Means Used.
MONTH.	Day.							
January .....	6	28	M.	F.	W.	Hotel work.....	Unknown.....	Foison.
February.....	6	30	Unk.	M.	W.	Clerk.....	Unknown.....	Poison.
February.....	8	65	W.	M.	W.	Farmer.....	New York.....	Hanging.
February.....	14	35	M.	M.	W.	Physician.....	Michigan.....	Not given.
February.....	14	46	M.	M.	W.	Miner.....	Ireland.....	Hanging.
February.....	26	28	S.	F.	W.	Student.....	Michigan.....	Drowning.
March.....	7	36	W.	M.	W.	Shingle Manfr.	Canada.....	Shooting.
March.....	11	82	M.	M.	W.	Laborer.....	Germany.....	Not given.
March.....	26	52	Unk.	M.	W.	Notion store...	Germany.....	Shooting.
April.....	12	18	S.	M.	W.	Laborer.....	Ohio.....	Not given.
April.....	22	26	M.	F.	W.	House-keeper...	Michigan.....	Not given.
April.....	30	35	S.	M.	W.	Farmer.....	Denmark.....	Hanging.
May.....	7	47	M.	M.	W.	Tailor.....	Germany.....	Shooting.
May.....	22	16	S.	F.	W.	Houseworkers..	Wisconsin.....	Poison.
May.....	27	62	M.	F.	W.	House-wife.....	Germany.....	Cut her throat.
May.....	Unk.	67	W.	M.	W.	Farmer.....	New York.....	Not given.
	6	64	M.	M.	W.	Farmer.....	New York.....	Paris Green.
		82	W.	M.	W.	Farmer.....	New York.....	Shooting.
			S.	M.	W.	Farmer.....	Michigan.....	Not given.
			W.	M.	W.	Farmer.....	Vermont.....	Not given.
			M.	F.	W.	Unemployed...	Michigan.....	Not given.
				M.	W.	Farmer.....	Pennsylvania..	Not given.

EXHIBIT 9.—CONTINUED.—*Suicidal Deaths, 1881.*

DATE OF DEATH.		Age.	Condi- tion.	Sex.	Color.	Occupation.	Nativity.	Means Used.
MONTH.	Day.							
July.....	9	41	M.	F.	W.	Farmer's wife..	Michigan.....	Hanging.
July.....	20	31	S.	M.	W.	Logger.....	Germany.....	Strychnine.
July.....	23	69	M.	M.	W.	Laborer.....	Canada.....	Drowning.
July.....	23	44	M.	F.	W.	House-wife.....	New York.....	Not given.
July.....	31	61	M.	M.	W.	Merchant.....	Indiana.....	Not given.
August.....	2	20	S.	F.	W.	Servant.....	Michigan.....	Laudanum.
August.....	4	26	S.	M.	W.	Farmer.....	New York.....	Hanging.
August.....	5	48	W.	M.	W.	Mason.....	Michigan.....	Not given.
August.....	10	44	M.	M.	W.	Painter.....	Michigan.....	Not given.
August.....	12	54	W.	M.	W.	Grocer.....	Pennsylvania..	Poison.
August.....	23	16	S.	F.	W.	Student.....	Germany.....	Poison.
August.....	23	53	M.	M.	W.	Farmer.....	Germany.....	Not given.
August.....	23	16	S.	F.	W.	Unknown.....	Massachusetts..	Poison.
August.....	24	54	M.	F.	W.	House-wife.....	New York.....	Not given.
September...	5	19	M.	F.	W.	House-wife.....	Michigan.....	Poison.
September...	9	Unk.	M.	M.	W.	Laborer.....	Germany.....	Hanging.
September...	9	59	S.	M.	W.	Unknown.....	New York.....	Not given.
September...	15	69	M.	M.	W.	Unknown.....	Vermont.....	Shooting.
September...	20	40	M.	M.	W.	Farmer.....	Germany.....	Not given.
September...	20	Unk.	M.	M.	W.	Farmer.....	Unknown.....	Not given.
September...	26	56	M.	M.	W.	Farmer.....	France.....	Shooting.
October.....	2	41	M.	M.	W.	Physician.....	Ohio.....	Not given.
October.....	7	29	W.	F.	W.	Farmer's wife..	Michigan.....	Morphine.
October.....	28	36	M.	M.	W.	Laborer.....	New York.....	Not given.
October.....	30	49	M.	F.	W.	House-wife.....	Nova Scotia....	Hanging.
November....	1	23	Unk.	M.	W.	Soldier.....	Michigan.....	Poison.
November....	5	35	M.	M.	W.	Farmer.....	New York.....	Drowning.
November....	5	51	M.	M.	W.	Farmer.....	England.....	Not given.
November....	8	50	M.	M.	W.	Physician.....	Ontario.....	Not given.
November....	9	37	M.	M.	W.	Clerk.....	Michigan.....	Not given.
November....	24	50	M.	M.	W.	Teamster.....	England.....	Not given.
December....	3	70	W.	M.	W.	Farmer.....	Michigan.....	Not given.
December....	15	79	M.	M.	W.	Farmer.....	New York.....	Hanging.
December....	17	33	M.	M.	W.	Lawyer.....	Ireland.....	Not given.
December....	25	37	M.	M.	W.	Farmer.....	Germany.....	Not given.

EXHIBIT 9.—CONTINUED.—*Suicidal Deaths, 1881.*

OCCUPATIONS.	No.	OCCUPATIONS.	No.	OCCUPATIONS.	No.
Clerks.....	2	Lawyer.....	1	Servant.....	1
Farmers' wives.....	2	Logger.....	1	Shingle manufacturer.....	1
Farmers.....	18	Mason.....	1	Soldier.....	1
Grocer.....	1	Merchant.....	1	Students.....	2
Hotel work.....	1	Miner.....	1	Tailor.....	1
Housekeeper.....	1	Notion store.....	1	Teamster.....	1
Housewives.....	5	Painter.....	1	Unemployed.....	1
Housework.....	1	Physicians.....	3	Unknown.....	3
Laborers.....	5				

NATIVITY.	No.	NATIVITY.	No.	NATIVITY.	No.
Canada.....	2	Ireland.....	2	Ontario.....	1
Denmark.....	1	Massachusetts.....	1	Pennsylvania.....	2
England.....	2	Michigan.....	14	Unknown.....	3
France.....	1	New York.....	11	Vermont.....	2
Germany.....	10	Nova Scotia.....	1	Wisconsin.....	1
Indiana.....	1	Ohio.....	2		

MEANS USED.	NUMBER.		MEANS USED.	NUMBER.		MEANS USED.	NUMBER.	
	Males.	Fe- males.		Males.	Fe- males.		Males.	Fe- males.
Cut her throat.....		1	Morphine.....		1	Poison.....	3	5
Drowning.....	2	1	Not given.....	23	4	Shooting.....	6	
Hanging.....	7	1	Paris Green.....	1		Strychnine.....	1	
Laudanum.....		1						

The fifteen principal causes of death in 1881, according to the returns, are arranged in order in Table XVIII., enabling us to study their numerical relations. Exhibit T presents a similar classification for each of the years 1876-1881.

Although diseases of the lungs caused a greater number of deaths than diseases pertaining to any other organ of the body in 1881, when we consider consumption alone it is for the first time, second in the list of the fifteen principal causes of deaths. Diphtheria, in 1881, heads the list. The fact of the very great prevalence of diphtheria in 1881 explains the large excess of zymotic diseases of the year, as previously mentioned. In 1874, diphtheria numbered last in the list, and was not included in the list of the fifteen principal causes in 1875. In 1876 it was tenth in the order, being third in 1877, and second the succeeding three years 1878, 1879 and 1880.

TABLE XVIII.—*Order of Succession of Fifteen Principal Conditions and Causes of Death in Michigan in 1881, according to the Returns, Exhibiting for each Specified Condition and Cause, by Sex, the Number of Deaths, and the Per Cent. of Deaths from each Cause to Deaths from All Causes.*

ORDER.	SPECIFIED CAUSES AND CONDITIONS, 1881.	NUMBER OF DEATHS.			PER CENT. FROM EACH CAUSE TO DEATHS FROM ALL CAUSES.		
		Total.	Males.	Females.	Total.	Males.	Females.
1	Diphtheria.....	a 2,063	1,030	1,030	10.72	10.04	11.56
2	Consumption .....	1,954	905	1,049	10.16	8.82	11.77
3	Fever, Typhoid.....	894	491	393	4.60	4.78	4.41
4	Cholera Infantum.....	b 857	462	391	4.45	4.50	4.39
5	Pneumonia.....	c 805	467	337	4.13	4.55	3.78
6	Old Age.....	725	360	365	3.77	3.51	4.10
7	Still-born .....	d 691	378	270	3.59	3.68	3.03
8	Diarrhea.....	e 501	258	213	2.60	2.81	2.39
9	Heart Disease.....	451	256	195	2.34	2.49	2.19
10	Scarlet Fever.....	f 333	186	196	1.93	1.81	2.20
11	Apoplexy and Paralysis.....	369	214	155	1.92	2.09	1.74
12	Brain, Inflammation of.....	361	192	169	1.93	1.87	1.90
13	Bowels, Inflammation of.....	g 342	188	153	1.78	1.83	1.72
14	Convulsions and Fits .....	337	184	153	1.75	1.79	1.72
15	Casualty .....	325	297	28	1.69	2.89	.31
Total .....		h 11,048	5,898	5,097	57.48	57.47	57.21
All Causes.....		i 19,258	10,263	8,910	100.00	100.00	100.00

a Includes 3 unknown sex.  
 c Includes 1 unknown sex.  
 e Includes acute and chronic.  
 g Includes 1 unknown sex.  
 i Includes 65 unknown sex.

b Includes 4 unknown sex.  
 d Includes 43 unknown sex.  
 f Includes 1 unknown sex.  
 h Includes 53 unknown sex.

EXHIBIT T.—*Order of Succession of Fifteen Principal Causes of Death in Michigan for each of the Years 1876 to 1881, inclusive.*

FIFTEEN PRINCIPAL CAUSES OF DEATH														
ORDER	1876.	1877.	1878.	1879.	1880.	1881.								
1	Consumption .....	1,664	Consumption .....	1,611	Consumption .....	1,692								
2	Still-born .....	720	Diphtheria .....	887	Diphtheria .....	1,542								
3	Pneumonia .....	627	Diphtheria .....	793	Still-born .....	812								
4	Old Age .....	483	Still-born .....	579	Pneumonia .....	738								
5	Typhoid Fever .....	426	Old Age .....	402	Still-born .....	608								
6	Scarlet Fever .....	389	Pneumonia .....	429	Old Age .....	513								
7	Apoplexy and Paral. ....	337	Scarlet Fever .....	332	Typhoid Fever .....	499								
8	Cholera Infantum .....	331	Heart Disease .....	329	Cholera Infantum .....	444								
9	Heart Disease .....	390	Typhoid Fever .....	328	Heart Disease .....	389								
10	Diphtheria .....	311	Apoplexy and Paral. ....	288	Apoplexy and Paral. ....	370								
11	Diarrhea .....	304	Convulsions and Fits .....	269	Cholera Infantum .....	347								
12	Brain, Infl. of .....	275	Cancer .....	249	Convulsions and Fits .....	361								
13	Convulsions and Fits .....	275	Dropsy .....	243	Cancer .....	310								
14	Cancer .....	241	Cholera Infantum .....	225	Dropsy .....	300								
15	Bowels, Infl. of .....	239	Brain, Infl. of .....	214	Casualty .....	261								
			Bowels, Infl. of .....		Cancer .....									



TABLE XIX.—Deaths from Ten Specified Causes Returned as having occurred in Michigan, during the Year 1881, Exhibiting the Number of each Sex, Total Number in each Month, and at different Periods of Age.

SEX, MONTHS, AND AGES.		CAUSES OF DEATH,—1881.									
		Cancer.	Cepha- litis.	Croup. <sup>a</sup>	Diar- rhea. <sup>b</sup>	Diph- theria.	Dysen- tery.	Measles.	Scarlet Fever.	Typhoid Fever.	Whoop- ing Cough.
SEX.	Total.....	310	361	379	501	2,063	270	254	383	384	143
	Males.....	112	192	228	235	1,080	140	118	186	491	70
	Females.....	198	169	151	218	1,030	130	136	196	393	72
	Unknown.....	—	—	—	—	3	—	—	1	—	—
MONTHS.	January.....	22	16	43	—	149	3	6	41	20	9
	February.....	16	21	43	4	98	2	15	31	15	4
	March.....	25	29	30	12	112	2	17	34	23	6
	April.....	26	28	25	11	133	—	44	36	34	6
	May.....	26	17	20	17	128	4	63	45	27	17
	June.....	26	24	11	45	125	9	25	33	35	8
	July.....	30	31	14	105	155	31	21	35	45	8
	August.....	25	57	28	157	162	91	26	35	99	20
	September.....	29	43	27	83	235	82	9	23	150	19
	October.....	32	38	30	40	316	32	7	17	178	23
	November.....	21	26	58	14	230	4	10	15	149	13
	December.....	31	29	49	13	215	10	10	37	108	9
	Unknown.....	—	2	1	—	7	—	1	1	1	—
Av. Month.....	26	30	32	42	171	23	21	32	74	13	
AGES.	Under 5.....	10	235	315	441	831	202	165	229	88	137
	5 to 10.....	2	28	56	6	712	10	27	102	64	5
	10 to 15.....	—	15	4	3	337	2	16	31	73	—
	15 to 20.....	—	12	1	1	103	1	12	7	150	—
	20 to 25.....	5	12	—	2	30	1	10	5	133	—
	25 to 30.....	6	9	—	2	11	1	7	3	101	—
	30 to 35.....	10	8	—	2	8	2	5	1	53	—
	35 to 40.....	21	7	—	1	3	1	4	1	37	—
	40 to 45.....	19	10	—	3	3	3	4	—	31	—
	45 to 50.....	39	7	—	3	2	1	—	1	26	—
	50 to 55.....	33	1	—	1	5	4	1	—	31	—
	55 to 60.....	41	1	—	3	—	4	1	—	26	—
	60 to 65.....	37	2	—	4	2	6	—	—	15	—
	65 to 70.....	27	2	—	7	—	10	—	—	17	—
	70 to 75.....	22	4	—	7	1	4	1	—	13	—
75 to 80.....	18	1	—	9	—	9	—	—	7	—	
80 and over.....	—	—	—	6	—	7	—	—	7	—	
					15	2	1	3	12	—	

<sup>a</sup> Obsolete.    • Excluding unknown month.

TABLE XX.—*Per Cent. of Deaths returned as having occurred in Michigan during the Year ending December 31, 1881, from each of Ten Specified Causes to Deaths from All Causes; and Per Cent. of each Sex, of Deaths in each Month, and at different Periods of Life to Total Deaths from each Specified Cause.*

SEX, MONTHS, AND AGES.		CAUSES OF DEATH,—1881. PER CENT. OF TOTAL.									
		Cancer.	Cepha- litis.	Croup.	Diar- rhea.	Diph- theria.	Dysen- tery.	Measles.	Scarlet Fever.	Typhoid Fever.	Whoop- ing Cough.
Per Ct. of All Causes		1.61	1.88	1.97	2.60	10.72	1.40	1.32	1.99	4.60	.74
SEX.	Males .....	36.13	53.19	60.16	57.49	49.93	51.85	46.46	43.56	55.54	49.30
	Females .....	63.37	46.81	39.84	42.51	40.93	48.15	53.54	51.18	44.46	50.70
	Unknown .....					.15			.26		
MONTHS.	January .....	7.10	4.43	11.35		7.22	1.11	2.38	10.70	2.28	6.34
	February .....	5.16	5.92	11.35	.80	4.75	.74	5.91	8.09	1.70	2.82
	March .....	8.06	8.03	7.92	2.40	5.43	.74	6.69	8.88	2.60	4.23
	April .....	8.39	7.76	6.60	2.20	6.45		17.32	9.40	3.85	4.23
	May .....	8.39	4.71	5.28	3.39	6.11	1.48	24.80	11.75	3.05	11.97
	June .....	8.39	6.65	2.90	8.98	6.06	3.33	9.84	8.61	3.96	5.63
	July .....	9.68	8.59	3.69	20.96	7.51	11.48	8.27	9.14	5.09	5.63
	August .....	8.06	15.79	7.39	31.34	7.85	33.71	10.24	9.14	11.20	14.08
	September .....	9.35	11.91	7.12	16.57	11.39	30.37	3.54	6.01	16.97	13.38
	October .....	10.32	10.53	7.92	7.98	15.32	11.85	2.76	4.44	20.14	16.20
	November .....	6.77	7.20	15.30	2.79	11.15	1.48	3.94	3.92	16.85	9.15
	December .....	10.32	8.08	12.93	2.59	10.42	3.71	3.94	9.66	12.22	6.34
	Unknown .....		.55	.26		.34		.39	.26	.11	
	Av. Month .....	8.33	8.31	8.31	8.33	8.29	8.39	8.27	8.31	8.33	8.33
AGES.	Under 5 .....	3.23	65.10	83.11	88.02	40.28	74.82	64.96	50.79	9.95	96.48
	5 to 10 .....	.64	7.76	14.78	1.20	34.51	3.71	10.63	26.63	7.24	3.52
	10 to 15 .....		4.15	1.06	.60	16.34	.74	6.30	8.09	8.26	
	15 to 20 .....		3.32	.26	.20	4.99	.37	4.72	1.83	16.97	
	20 to 25 .....	1.61	3.32		.40	1.45	.37	3.94	1.32	15.05	
	25 to 30 .....	1.94	2.49		.40	.53	.37	2.76	.78	11.43	
	30 to 35 .....	3.23	2.22		.40	.39	.74	1.97	.26	5.99	
	35 to 40 .....	6.77	1.94		.20	.15	.37	1.58	.26	4.18	
	40 to 45 .....	6.13	2.77		.60	.15	1.11	1.58		3.51	
	45 to 50 .....	12.58	1.94		.60	.10	.37		.26	2.94	
	50 to 55 .....	11.29	.28		.20	.24	1.48	.39		3.51	
	55 to 60 .....	13.23	.28		.60		1.48	.39		2.94	
	60 to 65 .....	11.93	.55		.80	.10	2.22			1.70	
	65 to 70 .....	8.71	.55		1.40		3.71			1.92	
	70 to 75 .....	7.10	1.11		1.39	.05	1.48	.39		1.47	
	75 to 80 .....	4.84	.23		1.79		3.33			.79	
	80 and over .....	6.45	.55		1.20		2.59			.79	
	Unknown .....	.32	1.33	.79		.72	.74	.39	.78	1.36	

a Excluding deaths in unknown month.

Because of special interest attached to the study of them, ten particular causes of deaths are tabulated with reference to sex, months in which the deaths occurred, and to periods of age. Table XIX. shows the numbers in relation to these particulars; Table XX. the per cent. With the exception of cancer, measles, and whooping-cough, these diseases are especially studied in relation to meteorological conditions.

*Cancer.*—The total number of deaths from cancer returned in 1881, was 310. Of this number, 112 were males, and 198 were females. That greater mortality should be among females is due to sexual differences predisposing to this condition.

EXHIBIT S.—Deaths from Cancer Returned as having occurred in Michigan during the Year 1881, indicating part of body affected.

AS RETURNED.	Total.	Males.	Fe- males.	AS RETURNED.	Total.	Males.	Fe- males.
Aggregate.....	310	112	198	Cancer, Internal.....	2	1	1
Cancer of Stomach.....	79	46	33	Cancer of Bowels.....	6	1	5
Cancer (Unspecified).....	143	43	100	Cancer on Hand.....	1	1	-----
Cancer of Womb.....	17	-----	17	Cancer on Chest.....	1	1	-----
Cancer of Face.....	10	9	1	Cancer of Throat.....	2	-----	2
Cancer of Liver.....	8	2	6	Cancerous Tumor.....	6	2	4
Cancer of Eye.....	3	2	1	Cancer of Tongue.....	1	1	-----
Cancer on Breast.....	21	-----	21	Cancer of Rectum.....	1	-----	1
Cancer on Mouth.....	5	2	3	Cancer in Side.....	1	-----	1
Cancer of Lungs.....	2	1	1	Cancer of Mammary Gland...	1	-----	1

EXHIBIT Z.—Deaths in Michigan in 1881, Compiled as Unknown.

CAUSES AS RETURNED.	Males.	Fe- males.	Un- known.	CAUSES AS RETURNED.	Males.	Fe- males.	Un- known.
Total number compiled Un- known in Table XVII.....	851	772	9	Found dead.....	4	-----	-----
Chronic disease.....	4	-----	-----	No particular disease.....	4	11	-----
Congestion.....	12	6	-----	Afflicted eyes.....	1	-----	-----
Female disease.....	-----	4	-----	Congenital.....	-----	2	-----
Complication of diseases.....	2	4	-----	Gall of the Stomach.....	-----	1	-----
Exhaustion.....	2	12	-----	Stricture of Bladder.....	1	-----	-----
Bilious.....	1	1	-----	Unknown.....	820	731	9

*Measles.*—The per cent. of deaths from measles in 1881 among females was considerably greater than among males. The month in which there was the greatest per cent. of deaths from this disease was May, when nearly one-fourth of the deaths from this cause occurred. Nearly 65 per cent. of these deaths were among children under five years of age.

*Whooping-cough.*—The greatest number of deaths from whooping-cough occurred in October, August and September being next in order. The proportion of males and females was about equal. No deaths occurred from this cause among persons over ten years of age, 96.48 per cent. of the deaths being among children under five years of age.

## METEOROLOGICAL CONDITIONS, AND THEIR RELATIONS TO DEATHS.

The study of meteorology in connection with the study of Vital Statistics has long been considered of great importance. The Registrar General, of England, instituted the important consideration of the meteorological conditions of England, as observed at Greenwich Observatory, in relation to deaths in England, as early as 1846.

For the State of Michigan, the observations made at Lansing were chosen to represent the meteorological characteristics of the State, and so far as the principal features are concerned, this has proved sufficient. Although the instrumental records and calculations are not the same for each place, the monthly oscillations of the temperature, humidity, and of atmospheric pressure at Lansing are uniform with those at other stations.

**EXHIBIT 10.—TEMPERATURE.—Average by Years and by Months, for the Years 1872 to 1881, inclusive, at the Agricultural College, near Lansing, Michigan. (Results of Observations by Prof. R. C. Kedzie.)**

YEARS.	ANNUAL AVERAGE.	AVERAGE TEMPERATURE, STATED IN DEGREES FAHRENHEIT, BY MONTHS.											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1872.....	45.54	21.59	21.34	24.75	47.39	58.48	71.82	74.91	71.22	62.08	47.44	29.80	15.74
1873.....	44.54	18.87	19.10	28.90	43.17	56.98	70.60	70.82	69.49	57.38	44.68	28.49	29.54
1874.....	47.32	27.70	25.51	32.90	36.87	59.58	70.61	72.02	69.39	62.85	49.10	35.00	26.96
1875.....	48.09	12.87	8.35	26.20	41.11	60.62	66.57	69.67	65.48	58.50	42.93	32.96	31.58
1876.....	46.17	30.22	27.38	30.55	44.16	57.95	68.14	72.48	71.55	56.30	43.74	36.33	15.23
1877.....	47.42	18.07	32.31	24.51	46.16	58.25	65.93	71.43	68.46	61.28	50.88	35.24	36.57
1878.....	48.29	29.11	28.07	40.90	50.55	54.57	64.08	73.04	70.15	63.15	48.33	36.29	21.29
1879.....	46.88	19.19	20.40	33.19	44.84	58.76	66.02	74.03	70.00	56.21	57.28	38.22	27.46
1880.....	47.28	37.10	29.19	35.50	45.87	64.30	67.60	68.04	68.58	55.83	46.23	27.52	22.07
1881.....	48.78	18.98	21.58	30.28	45.59	65.24	64.31	73.43	72.69	69.69	52.51	38.20	34.31
Av. for 10 Years*	46.58	23.87	23.82	30.65	44.57	59.49	67.57	71.99	69.70	60.32	48.31	33.81	26.08

\* Average for 10 years ending with 1881.

The annual average temperature for 1881 was 2.20° higher than the average for ten years, and higher than that of any year included in the average. With the exception of the years 1873 and 1875, the temperature for January, 1881, was lower than in any of the other ten years and considerably lower than the average. On the other hand the temperature of December was much higher than the average for the month. The temperature for the months of May and September was very much higher than the average, and higher than for the same month in any of the ten years included in the average.

EXHIBIT 11.—ABSOLUTE HUMIDITY.—*Grains of Vapor in a Cubic Foot of Air, by Months, for the Years 1872 to 1881, inclusive, at the Agricultural College, near Lansing, Michigan.*

YEARS.	ANNUAL AVERAGE.	GRAINS OF VAPOR IN CUBIC FOOT OF AIR, BY MONTHS.											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1872.....	3.70	1.31	1.23	1.32	2.99	4.29	6.78	7.33	7.15	5.57	3.40	1.89	1.15
1873.....	3.36	1.14	1.43	1.52	2.71	4.00	5.85	6.45	6.29	4.50	2.92	1.73	1.82
1874.....	3.33	1.58	1.55	2.00	2.08	3.77	6.07	6.00	5.75	4.72	3.15	2.06	1.55
1875.....	3.11	0.92	0.73	1.03	2.12	3.74	5.17	5.91	5.22	4.38	2.57	1.84	2.05
1876.....	3.40	1.88	1.57	1.78	2.26	3.93	5.95	6.76	6.31	4.43	2.56	2.26	1.09
1877.....	3.43	1.19	1.85	1.53	2.47	3.79	5.32	5.76	5.74	4.82	3.59	2.22	2.39
1878.....	3.69	1.82	1.91	2.80	3.51	3.68	5.05	6.83	6.05	5.18	3.38	2.44	1.62
1879.....	3.43	1.31	1.23	1.93	2.64	3.94	5.09	6.30	5.58	4.40	4.61	2.46	1.70
1880.....	3.71	2.22	1.92	1.97	3.02	5.02	6.03	6.20	6.32	4.98	3.31	1.93	1.59
1881.....	3.78	1.08	1.66	1.93	2.65	5.21	5.40	6.65	6.09	5.56	4.13	2.47	2.22
Av. for 10 yrs.*	3.50	1.45	1.51	1.84	2.65	4.14	5.67	6.42	6.05	4.88	3.36	2.13	1.72

\* Average for 10 years ending with 1881.

EXHIBIT 12.—PRESSURE OF THE ATMOSPHERE.—*Observations of Barometer reduced to freezing point, and corrected for instrumental error (+.12) previous to 1875, for each of the years 1872 to 1881, inclusive, and the Average for 10 years ending with 1881, at the Agricultural College, near Lansing, Michigan. (Based upon Observations by Prof. R. C. Kedzie.)*

YEARS.	ANNUAL AVERAGE.	PRESSURE OF THE ATMOSPHERE, STATED IN INCHES OF MERCURIAL COLUMN, BY MONTHS.											
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
1872..	29.007	28.958	28.962	29.031	28.972	28.988	28.929	29.044	29.087	29.010	29.009	29.001	29.112
1873..	28.994	28.993	28.967	28.972	28.918	28.946	28.960	29.034	29.047	29.048	29.037	28.953	29.049
1874..	29.033	29.168	29.048	29.015	29.061	28.984	28.998	29.027	29.044	29.066	29.073	29.057	29.121
1875..	28.998	29.005	28.875	28.944	29.047	29.061	29.029	29.044	29.025	29.021	29.016	29.054	28.955
1876..	29.010	29.073	28.963	28.929	29.000	29.000	28.911	29.000	29.045	28.905	28.929	28.953	29.203
1877..	29.060	29.037	29.124	28.981	28.974	29.034	29.020	29.062	29.048	29.121	29.077	29.059	29.180
1878..	29.033	29.009	29.020	29.027	28.975	29.013	29.030	29.065	29.010	29.157	29.080	29.041	29.147
1879..	29.080	29.130	29.107	29.102	29.100	29.118	29.073	29.087	29.130	29.132	29.150	29.027	29.032
1880..	29.094	28.993	29.077	29.181	28.984	29.061	29.063	29.069	29.126	29.082	29.130	29.215	29.115
1881..	29.087	29.077	29.132	28.980	29.084	29.119	29.078	29.080	29.117	29.077	29.181	29.125	29.114
Av.*	29.043	29.050	29.040	28.998	28.990	29.020	29.000	29.022	29.060	29.073	29.078	29.058	29.109

\* Average for 10 years ending with 1881.

The atmospheric pressure of the average. The greatest in the month of March.

greater than that of October, the least



# CAUSES OF DEATH,—METEOROLOGY.

By Months, some Meteorological conditions at Certain Localities in Michigan during the Year 1881.

3D A. 1881.	ALPENA, MICH.				DETROIT, MICH.				GRAND HAVEN, MICH.				MARQUETTE, MICH.			
	Average Barome- ter.	Average Temper- ature— Fahr.	Total Rain- fall in Inches.	Preval- ing Winds.	Average Barome- ter.	Average Temper- ature— Fahr.	Total Rain- fall in Inches.	Preval- ing Winds.	Average Barome- ter.	Average Temper- ature— Fahr.	Total Rain- fall in Inches.	Preval- ing Winds.	Average Barome- ter.	Average Temper- ature— Fahr.	Total Rain- fall in Inches.	Preval- ing Winds.
YEAR, 1881.....	29.352	42.33	45.61	N. W.	29.325	51.40	44.91	W.	29.348	48.23	44.96	E.	29.292	41.00	42.90	N. W.
January.....	29.424	14.00	1.59	W.	29.415	17.70	2.37	S. W.	29.426	18.80	2.29	S. E.	29.346	10.10	1.69	W.
February.....	29.435	15.90	5.04	S. E.	29.412	26.50	7.66	E.	29.419	23.20	6.13	E.	29.399	14.30	2.90	N. W.
March.....	29.301	26.40	3.04	N. W.	29.120	34.20	2.88	W.	29.196	30.90	.46	N. W.	29.222	24.80	3.84	N. W.
April.....	29.328	24.30	.88	N. W.	29.278	44.90	2.33	N. W.	29.341	40.00	1.89	S. W.	29.292	33.20	.52	N. W.
May.....	29.398	54.00	4.94	S.	29.338	64.70	2.45	E.	29.359	62.40	1.19	N. E.	29.375	53.30	4.46	N. W.
June.....	29.300	56.30	3.23	N. W.	29.221	65.30	5.90	E.	29.269	63.00	3.37	N. E.	29.228	55.10	3.47	N. W.
July.....	29.325	68.10	2.09	N. W.	29.315	74.30	3.26	W.	29.346	71.10	4.78	W.	29.256	69.00	2.49	W.
August.....	29.384	66.40	3.02	S. E.	29.335	74.00	1.32	E.	29.346	71.00	1.91	S.	29.298	66.00	2.90	N.
September.....	29.319	62.40	6.16	S. E.	29.315	72.30	2.94	S.	29.292	67.41	6.71	S. E.	29.185	57.60	12.71	S. W.
October.....	29.425	46.00	10.25	W.	29.398	57.60	5.73	N. W.	29.410	52.50	7.87	E.	29.327	44.90	3.71	N. W.
November.....	29.316	33.80	3.09	W.	29.365	44.50	3.87	S.	29.359	49.90	4.19	W.	29.215	30.90	3.43	W.
December.....	29.339	30.30	2.28	S. W.	29.373	40.20	4.17	S.	29.398	36.90	3.77	S.	29.260	30.80	.98	N. W.
Average Month.....	29.352	42.33	3.90	.....	29.325	51.40	3.73	.....	29.348	48.23	3.71	.....	29.292	41.00	3.58	.....

## VITAL STATISTICS OF MICHIGAN, 1881.

EXHIBIT 13.—ALL CAUSES.—Deaths Returned as having occurred in Michigan from All Causes during the Years 1871-1881; Per Cent. of Deaths to the Estimated Population\* in each Year, and some coincident Meteorological conditions, at the Agricultural College, near Lansing, Michigan, and near the center of the thickly-settled part of the State.

Year.	Estimated Inhabitants. <sup>a</sup>	Deaths Reported.		Temperature.—Fahr.; Mean of 3 Daily Observations,—7 A. M., 2 P. M., and 9 P. M.		Humidity of Atmosphere, etc.— Monthly Averages.		Ozone.—Rela- tive. Maximum = 10.		Average Velocity of Wind, Miles per hour,—by Registering Anemometer. <sup>c</sup>		Rain and Melted Snow, in Inches.		Pressure of Atmos- phere, in Inches of Mercury. (Reduced to 32° F.)	
		Number.	Per Cent. of Deaths to Estimated Inhabitants.	Average Range.		Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Va- por in Cubic Foot, of Air.	Day.—7 A. M. to 12 P. M.		Night.—9 P. M. to 1 A. M.	Annual.	Average, Daily.	Annual.	Average, Daily.	Average Pressure.
				Daily.	From Day to Day, 2 P. M. to 9 P. M.										
1870	1,690,369	19,228	1.14	30.52	.....	79	3.78	4.00	4.56	.....	.....	.....	34.660	.....	29.087
1871	1,305,695	14,228	1.09	11.37	17.97	80	3.35	4.02	4.53	.....	1.307	.141	31.745	.141	28.874
1872	1,263,514	13,371	1.06	15.31	16.14	83	3.70	2.82	4.34	.....	1.903	.123	20.803	.123	28.867
1873	1,676,937	16,102	.98	13.54	16.39	73	3.71	4.05	3.63	9.4	43.800	.137	43.800	.137	29.103
1874	1,423,964	13,355	.94	15.47	17.65	79	3.54	3.76	4.04	8.5	81.684	.147	81.684	.147	28.088
1875	1,348,017	12,500	.93	15.65	16.27	76	3.35	4.10	3.39	.....	22.939	.130	22.939	.130	28.935
1876	1,184,282	10,706	.91	17.11	19.03	81	3.90	.....	.....	.....	37.757	.....	37.757	.....	28.876
1877	1,584,556	14,407	.91	14.87	17.24	76	3.43	3.24	3.33	.....	26.780	.125	26.780	.125	29.080
1878	1,438,235	12,576	.87	13.09	16.33	81	3.40	3.68	4.11	.....	30.553	.138	30.553	.138	29.010
1879	1,455,567	12,919	.87	15.12	17.53	80	3.45	3.06	3.33	.....	37.420	.109	37.420	.109	29.065
1880	1,392,411	11,950	.86	15.34	17.65	79	3.11	4.53	5.04	.....	28.437	.306	28.437	.306	29.003
1881	1,534,457	12,705	.83	13.63	16.05	79	3.69	3.00	3.42	5.1	81.990	.115	81.990	.115	28.083
1882	1,223,257	9,728	.71	16.53	19.97	80	3.56	.....	.....	.....	27.210	.....	27.210	.....	28.884

<sup>a</sup> Population estimated from Censuses of 1870 and 1880. <sup>b</sup> See foot-notes to Exhibit K, page 256. <sup>c</sup> From observations at the office of the State Board of Health. <sup>d</sup> Exceptions to the proposition that the temperature was less than the average in years in which the death-rate was greater than the average, and vice versa.

EXHIBIT 14.—ALL CAUSES.—Deaths Returned as having occurred in Michigan from All Causes, by Months, during the Year 1881, and some coincident Meteorological conditions at the Office of the State Board of Health, at Lansing.

MONTHS IN ORDER BY NUMBER OF REPORTED DEATHS FROM ALL CAUSES, GREATEST FIRST.	DEATHS REPORTED FROM ALL CAUSES, 1881.						TEMPERATURE, DE- GREES.—FAH. Average of Daily Observations at 7 A. M., 2 P. M., and 9 P. M.	HUMIDITY OF ATMOSPHERE, ETC.—MONTHLY AVERAGES.	OZONE.—REL- ATIVE. MAXIMUM=10.			Average Velocity of Wind, Miles per Hour,—by Regis- tering Anemometer.	Rain and Melted Snow, in Inches.	PRESSURE OF ATMOS- PHERE.—INCHES OF MERCURY. (Reduced to 32° F.)					
	PER CENT. OF TOTAL.								Relative Humid- ity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor in Cu- bic Foot of Air.	Day,—7 A. M. to 2 P. M.			Night,—9 P. M. to 7 A. M.	Monthly, and Year.	Average, Daily.			
	Total.	Males.	Females.	Unknown.	Total.	Males.											Females.	Unknown.	
YEAR, 1881.....	19,172	10,223	8,884	65	100.00	100.00	100.00	Unknown.	19.81	49.59	70	8.54	4.00	4.66	9.6	35.28	1.402	.186	29,017
Sept. ....	2,301	1,226	1,071	4	12.00	11.69	12.06	6.15	22.53	71.33	65	5.59	4.12	3.57	10.3	3.24	.654	.150	\$ 29,969
August.....	2,246	1,198	1,038	10	11.72	11.68	15.38	24.48	74.63	74.63	62	5.80	4.45	3.53	7.0	2.06	.577	.106	29,003
October....	1,941	997	943	1	10.12	9.75	10.61	1.54	19.54	53.63	75	3.94	2.77	3.32	8.7	6.60	.828	.206	29,083
Dec. ....	1,748	927	811	10	9.12	9.07	9.13	15.38	19.55	35.28	65	2.10	3.39	3.77	11.2	1.76	.947	.215	29,036
July.....	1,701	921	771	9	8.87	9.01	8.68	13.85	23.32	75.41	72	6.08	4.45	4.10	8.1	1.63	.827	.089	29,035
Nov. ....	1,617	805	717	5	8.43	8.75	8.07	7.69	15.57	38.78	74	2.37	3.87	5.30	14.6	4.39	1.069	.279	29,037
Average.....	1,598	832	740	5	8.33	8.33	8.33	8.33	19.84	49.59	70	3.51	4.00	4.66	9.6	2.94	.843	.186	29,017
May.....	1,457	737	714	6	7.60	7.21	8.04	9.23	21.10	66.94	61	4.84	3.94	4.26	8.4	2.97	.707	.116	29,038
April.....	1,437	803	624	—	7.41	7.56	7.02	—	21.33	43.23	64	2.49	4.50	6.07	9.8	1.63	.717	.149	29,978
March.....	1,315	732	580	3	6.86	7.16	6.53	4.92	14.68	39.59	78	1.76	4.92	6.00	10.4	2.14	1.017	.214	29,931
June.....	1,276	673	598	5	6.66	6.53	6.78	7.69	21.43	65.99	67	5.07	3.73	4.80	8.4	3.65	.641	.154	29,940
Feb. ....	1,078	562	509	7	5.62	5.50	5.73	10.77	19.61	22.27	80	1.40	3.75	5.54	11.0	3.92	1.326	.302	29,071
Jan. ....	1,065	552	508	5	5.56	5.40	5.72	7.69	18.65	16.98	81	1.08	4.62	5.45	7.3	2.97	1.202	.248	\$ 29,077

a See foot-notes to Exhibit K, page 236. b Excluding Deaths in unknown month. c Exceptions to the proposition that the Average Daily Range of Temperature was greater than the average in months when more than the average number of deaths occurred, and vice versa. d Exceptions to the proposition that the Average Daily Temperature was greater than the average in months when more than the average number of deaths occurred, and vice versa. e Exceptions to the proposition that the Rain-fall was less than the average in months when more than the average number of deaths occurred, and vice versa. f Exceptions to the proposition that the Ozone was less than the average in months when more than the average number of deaths occurred, and vice versa. g Exceptions to the proposition that the Atmospheric Pressure, as indicated by the Barometer, was greater than the average in months when more than the average number of deaths occurred, and vice versa.

*Croup.*—During the year 378 deaths were returned as having occurred from croup. Of this number the largest proportion occurred in the months of November, December, January, and February. Exhibit K shows the relation of certain meteorological data to deaths from croup, and is constructed with regard to propositions given in the foot-notes. This exhibit resembles, in its construction and relations, that of several succeeding exhibits.

**EXHIBIT K.—CROUP.**—*Deaths Returned as having occurred in Michigan from Croup, by Months, during the Year 1881, and some coincident Meteorological conditions.*

MONTHS IN ORDER BY NUMBER OF DEATHS FROM CROUP, GREATEST FIRST.		DEATHS FROM CROUP, 1881.		TEMPERA- TURE,— DEGREES F.		HUMIDITY OF ATMOS- PHERE, ETC.,—MONTHLY AVERAGES.				OZONE,— RELATIVE. MAXIMUM= 10.		Average Velocity of Wind, Miles per Hour,— by Registering Anemometer.		Rain-fall, in Inches.	Average Pressure of Atmosphere. (Barometer Reduced to 32° Fahrenheit.)
		Number.	Per Cent. of Total.	Average Daily Range during Day and following Night by Register- ing Therm'g. Observed at 7 A. M.	Average of Daily Observations, at 7 A. M., 2 P. M., and 9 P. M.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor in Cu- bic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Inhaled by one person in 24 hours. <sup>b</sup>	Weight, in Troy Ounces, of Vapor exhaled from Air passages in 24 hours, in excess of vapor inhaled. <sup>c</sup>	Day,—7 A. M. to 2 P. M.	Night,—0 P. M. to 7 A. M.				
Year, 1881 .....		4378	100.00	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	35.28	29.017	
More than Av. No. of Deaths.	November.....	58	15.34	15.57	38.78	74	2.37	1.48	10.20	3.87	5.30	14.6	4.39	29.037	
	December.....	49	12.96	12.55	35.28	75	2.10	1.31	10.37	3.39	3.77	11.2	1.76	29.036	
	January.....	43	11.38	18.65	18.98	81	1.08	.68	11.00	4.52	5.45	7.3	2.27	29.077	
	February.....	43	11.38	10.61	22.27	80	1.40	.88	10.80	3.75	5.54	11.0	3.92	29.071	
Average.....		32	8.33	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	2.94	29.017	
Less than the Average No. of Deaths.	March.....	30	7.94	14.68	30.59	78	1.76	1.10	10.58	4.52	6.00	10.4	2.14	28.821	
	October.....	30	7.94	19.84	53.03	73	3.94	2.46	9.22	2.77	3.52	8.7	5.60	29.059	
	August.....	28	7.41	24.48	74.63	62	5.80	3.63	8.05	4.45	3.53	7.0	2.05	29.063	
	September.....	27	7.14	22.53	71.33	63	5.59	3.49	8.19	4.12	3.57	10.3	3.24	28.999	
	April.....	25	6.61	21.33	43.23	64	2.49	1.56	10.12	4.50	6.07	9.8	1.65	28.978	
	May.....	20	5.29	24.10	66.94	61	4.84	3.03	8.63	3.94	4.26	8.4	2.97	29.038	
	July.....	14	3.70	23.32	75.41	62	6.08	3.89	7.88	4.45	4.10	8.1	1.63	29.033	
June.....	11	2.91	21.43	65.99	67	5.67	3.17	8.51	3.73	4.80	8.4	3.66	28.940		

\* Calculated from readings of Dry Bulb and Wet Bulb Thermometers.

<sup>b</sup> Calculated for 18 respirations per minute, of 23 cubic inches of air each.

<sup>c</sup> Assuming the air exhaled to be saturated with vapor at the temperature of 98° F., each cubic foot containing 18.69 grains, 35 respirations per minute, of 23 cubic inches of air each, making 11.08 Troy ounces of vapor exhaled daily. No correction made for expansion of air after being inhaled.

<sup>d</sup> Includes 64 deaths from Membranous Croup, 2 from Acute, and 1 from Unknown month.

<sup>e</sup> Exceptions to the proposition that more than half the deaths from croup occurred in months when the temperature was less than 50° F. are: 1 from croup occurred in May, 1 from croup occurred in June, and 1 from croup occurred in July.

<sup>f</sup> Exceptions to the proposition that more than half the deaths from croup occurred in months in which there was less than 1 inch of rain are: 1 from croup occurred in May, 1 from croup occurred in June, and 1 from croup occurred in July.

*Croup and Diphtheria.*—These two diseases are thus grouped together, as well as exhibited separately, for their more thorough study, and because they are considered by many to have pathological features that are identical.

Exhibit L shows the order of monthly mortality to be different than with reference to croup alone, the greatest number of deaths occurring in October, November, December, and September.

**EXHIBIT L.—CROUP AND DIPHThERIA.—Deaths Returned as having occurred in Michigan from Croup and Diphtheria, by Months, during the year 1881, and some coincident Meteorological conditions.**

MONTHS IN ORDER BY NUM- BER OF DEATHS FROM CROUP AND DIPHThERIA, GREATEST FIRST.			DEATHS FROM CROUP AND DIPHThERIA, 1881.		TEMPERATURE, DEGREES,— FAHR.		HUMIDITY OF ATMOS- PHERE, ETC.— MONTHLY AVERAGES.			OZONE,— RELATIVE. MAXIMUM = 10.		Average Velocity of Wind, Miles per Hour,—by Registering Anemometer.		Average Pressure of Atmosphere. (Barometer Reduced to 32° Fahr.)		
			Number.	Per Cent. of Total.	Average Daily Range dur- ing Day and following Night by Reg. Therm'ts. Observed at 7 A. M.	Average of Daily Observa- tions at 7 A. M., 2 P. M., and 9 P. M.	Relative Humidity or Per Cent. of Saturation.	Weight in Grains, of Vapor in Cubic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Inhaled by one person in 24 hours. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Exhaled from Air passages in 24 hours, in excess of vapor inhaled. <sup>a</sup>	Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.				
Year, 1881.....			2,370	100.00	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	29.017		
More than the Average No. of Deaths.	Oct.....	337	14.22	19.84	53.63	75	3.94	2.46	9.22	2.77	3.52	8.7	29.089			
	Nov.....	276	11.65	15.57	38.78	74	2.37	1.48	10.20	3.87	5.30	14.6	29.037			
	Dec.....	259	10.93	12.55	35.28	75	2.10	1.31	10.37	3.39	3.77	11.2	29.056			
	Sept.....	257	10.84	22.53	71.33	65	5.59	3.49	8.19	4.12	3.57	10.3	28.999			
Average.....			198	8.33	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	29.017		
Less than the Average No. of Deaths.	Aug.....	190	8.02	24.48	74.63	62	5.80	3.63	8.05	4.45	3.53	7.0	29.063			
	Jan.....	183	7.72	18.65	16.98	81	1.08	.68	11.00	4.52	5.45	7.3	29.077			
	July.....	169	7.13	23.32	75.41	62	6.08	3.80	7.88	4.45	4.10	8.1	29.035			
	April.....	151	6.37	21.33	43.23	64	2.49	1.56	10.12	4.50	6.07	9.8	28.978			
	May.....	142	5.99	24.10	66.94	61	4.84	3.03	8.65	3.94	4.26	8.4	29.033			
	March.....	138	5.82	14.68	20.59	78	1.76	1.10	10.58	4.52	6.00	10.4	28.821			
	Feb.....	134	5.65	19.61	22.27	80	1.40	.88	10.80	3.75	5.54	11.0	29.071			
	June.....	134	5.65	21.43	65.99	67	5.07	3.17	8.51	3.73	4.80	8.4	28.940			

<sup>a</sup> See foot-notes to Exhibit K, page 256.

<sup>b</sup> Excluding 8 deaths in unknown Month.

<sup>c</sup> Exceptions to the proposition that more than an average number of deaths from Croup and Diphtheria occurred in months in which the Mean Temperature was less than the average, and vice versa.

<sup>d</sup> Exceptions to the proposition that more than an average number of deaths from Croup and Diphtheria occurred in months in which there was less than the average quantity of vapor inhaled, and vice versa.



**EXHIBIT M.—DIPHTHERIA.—Deaths Returned as having occurred in Michigan from Diphtheria, by Months, during the Year 1881, and some coincident Meteorological conditions.**

MONTHS IN ORDER BY NUMBER OF DEATHS FROM DIPHTHERIA, GREATEST FIRST.	DEATHS FROM DIPHTHERIA, 1881.		TEMPERATURE, DEGREES,— FAHR.		HUMIDITY OF ATMOSPHERE, ETC.,— MONTHLY AVERAGES.				OZONE.— RELATIVE MAXIMUM =10.		Average Velocity of Wind, Miles per Hour,—by Registering Anemometer.	Average Pressure of Atmosphere. (Barometer Reduced to 32° Fahr. level.)
	Number.	Per Cent. of Total.	Average Daily Range during Day and following Night by Reg. Thermometers. Observed at 7 A. M.	Average of Daily Observations at 7 A. M., 2 P. M., and 9 P. M.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor in Cubic Foot of Air.*	Weight, in Troy Ounces, of Vapor Inhaled by one person in 24 hours.*	Weight, in Troy Ounces, of Vapor Exhaled from Air passages in 24 hours, in excess of vapor inhaled.*	Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.		
Year, 1881.....	2,036	100.00	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	29.017
More than Av. No. of Deaths,												
October.....	316	15.57	19.84	53.63	75	3.94	4.26	9.22	2.77	3.52	9.7	29.089
September.....	235	11.43	22.53	71.33	63	3.59	4.34	8.19	4.12	3.57	10.3	28.999
November.....	230	11.18	15.37	38.78	74	2.37	1.48	10.20	3.87	5.30	14.6	29.037
December.....	215	10.46	12.55	35.28	73	2.10	1.31	10.37	3.39	3.77	11.2	29.066
Average.....	171	8.33	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	29.017
Less than the Average Number of Deaths,												
August.....	162	7.89	21.43	74.63	62	3.30	3.63	3.05	4.45	3.53	7.0	29.063
July.....	155	7.54	23.32	73.41	61	6.08	3.80	7.82	4.45	4.10	8.1	29.035
January.....	149	7.25	12.65	16.98	81	1.08	1.68	11.00	4.52	5.45	7.3	29.077
April.....	133	6.47	21.33	43.23	64	2.49	1.56	10.12	4.50	6.07	9.8	28.978
May.....	126	6.13	24.10	66.91	61	4.84	3.03	2.65	3.94	4.26	8.4	29.038
June.....	125	6.08	21.43	63.99	67	5.07	3.17	3.51	3.73	4.80	8.4	28.940
March.....	112	5.45	14.62	30.59	78	1.76	1.19	10.52	4.52	6.00	10.4	28.821
February.....	92	4.76	19.61	22.27	80	1.40	1.38	10.80	3.75	5.54	11.0	29.071

\* See foot-notes to Exhibit K, page 254.

† Excluding 7 in unknown month.

• Exceptions to the proposition that more than an average number of deaths from Diphtheria occurred in months when the mean temperature was less than the average, and vice versa.

• Exceptions to the proposition that more than an average number of deaths from Diphtheria occurred in months when less than the average quantity of vapor was inhaled, and vice versa.

*Diphtheria*.—The great prevalence of diphtheria in 1881 has been previously spoken of. The number of deaths per month was greater than the average in the months of October, September November, and December. The number of deaths from diphtheria occurring in January, February and March, when the temperature was comparatively low, compared with the number of deaths occurring in October and September, when the temperature was so much above the average, does not altogether support a prevailing idea that the disease is a cold weather disease.

*Deaths from Diphtheria, by Counties, for each of the Years 1876-1881.*

STATE AND COUNTIES.	1881.	1880.	1879.	1878.	1877.	1876.
STATE .....	2,063	1,542	1,473	887	503	311
Alcona .....	3	3	3	3		
Allegan .....	36	11	20	29	1	4
Alpena .....	3					
Antrim .....	9	3	11	10	10	
Baraga .....						
Barry .....	62	12	8	17	19	15
Bay .....	112	40	41	16	12	13
Benzie .....	1	2	4			
Berrien .....	7	31	70	27	6	5
Branch .....	4	10	33	16	21	25
Calhoun .....	13	8	40	10	36	15
Cass .....		9	47	47	4	6
Charlevoix .....	1		1		1	
Cheboygan .....	10	3	1	20	8	
Chippewa .....		2				
Clare .....	13	42	2			
Clinton .....	49	19	15	52	2	5
Crawford .....	5		1			
Delta .....	10	6			1	1
Eaton .....	36	18	30	47	12	23
Emmet .....	10	1	3			
Genesee .....	56	33	17	17	29	3
Gladwin .....			7			
Grand Traverse .....	18	6	2	6	25	1
Gratiot .....	23	31	31	18	21	1
Hillsdale .....	29	14	32	19	10	12
Houghton .....	3			1		
Huron .....	15	7	8	10	4	
Ingham .....	29	14	56	9	2	3
Ionia .....	42	11	16	14	9	2

*Deaths from Diphtheria.—Continued.*

COUNTIES.	1881.	1880.	1879.	1878.	1877.	1876.
Iosco.....	57	1	4	2	1	6
Isabella.....	41	55	23	1	.....	.....
Isle Royal.....	.....	.....	.....	.....	.....	.....
Jackson.....	26	5	26	84	58	5
Kalamazoo.....	77	13	22	17	20	13
Kalkaska.....	7	1	1	.....	.....	.....
Kent.....	180	194	171	64	74	18
Keweenaw.....	4	.....	.....	.....	.....	.....
Lake.....	14	3	2	.....	.....	.....
Lapeer.....	19	6	42	7	11	.....
Leelanaw.....	10	13	.....	.....	.....	.....
Lenawee.....	12	17	10	12	23	9
Livingston.....	17	19	23	5	2	.....
Mackinac.....	.....	.....	.....	1	.....	.....
Macomb.....	25	8	19	17	3	2
Manistee.....	4	2	4	1	.....	.....
Manitou.....	.....	.....	.....	.....	.....	.....
Marquette.....	19	7	5	10	.....	2
Mason.....	83	31	14	.....	1	.....
Mecosta.....	134	60	18	2	1	.....
Menominee.....	1	1	.....	.....	.....	.....
Midland.....	10	28	5	8	2	.....
Missaukee.....	1	.....	.....	1	.....	.....
Monroe.....	12	20	14	17	3	5
Montcalm.....	69	80	11	6	8	.....
Montmorency.....	.....	.....	.....	.....	.....	.....
Muskegon.....	47	43	37	.....	2	2
Newaygo.....	41	60	8	5	3	1
Oakland.....	13	7	21	20	15	5
Oceana.....	27	13	13	1	.....	1
Ogemaw.....	.....	.....	.....	.....	.....	2
Ontonagon.....	1	.....	.....	.....	.....	.....
Osceola.....	9	60	23	.....	.....	.....
Oscoda.....	2	.....	.....	.....	.....	.....
Otsego.....	2	1	2	2	.....	.....
Ottawa.....	33	15	44	3	6	.....
Presque Isle.....	3	.....	.....	.....	.....	.....
Roscommon.....	.....	2	2	.....	.....	.....
Saginaw.....	103	148	157	52	19	13
Sanilac.....	23	3	10	12	17	6

*Deaths from Diphtheria.—Continued.*

COUNTIES.	1881.	1880.	1879.	1878.	1877.	1876.
Schoolcraft.....						
Shiawassee.....	12	13	8	11	1	1
St. Clair.....	39	43	7	21	13	15
St. Joseph.....	12	13	28	13	5	5
Tuscola.....	53	41	46	5	5	4
Van Buren.....	29	4	11	7	4	2
Washtenaw.....	16	9	10	4	1	2
Wayne.....	136	137	128	67	55	58
Wexford.....	9	24	6	20		
No. of Counties.....	63	62	61	52	46	38

**EXHIBIT V.—CEREBRO-SPINAL MENINGITIS, ETC.—***The Total Number of Deaths from Cerebro-spinal Meningitis, Spotted Fever, Spinal Meningitis, Meningitis, and Spinal Fever, Returned as having occurred in Michigan during the Year 1881, by Months, and by Sex.*

CAUSES OF DEATH.	SEX.	YEAR, 1881.	MONTHS, 1881.											
			Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.
Total.....	Total..	330	13	20	24	39	42	24	30	42	26	30	21	19
	Males..	191	6	10	12	27	25	15	20	25	19	12	12	8
	Fema's	139	7	10	12	12	17	9	10	17	7	18	9	11
Cerebro-spinal Meningitis	Total..	41	2	6	3	4	5	1	6	5	1	2	3	3
	Males..	23		4	3	3	3	1	5	2	1	1	3	2
	Fema's	13	2	2		1	2		1	3		1		1
Spotted Fever	Total..	9	1			2		1		3		1		1
	Males..	5				2				2				1
	Fema's	4	1					1		1		1		
Spinal Meningitis	Total..	123	4	7	9	19	17	10	7	16	8	13	7	6
	Males..	76	3	2	6	14	11	9	4	10	7	4	4	2
	Fema's	47	1	5	3	5	6	1	3	6	1	9	3	4
Meningitis	Total..	21	1	3	1	3	1	1	4	1	4		1	1
	Males..	10	1	1		2	1		1	1	2			1
	Fema's	11		2	1	1		1	3		2		1	
Spinal Fe.	Total..	136	5	4	11	11	19	11	13	17	13	14	10	8
	Males..	72	2	3	3	6	10	5	10	10	9	7	5	2
	Fema's	64	3	1	8	5	9	6	3	7	4	7	5	6

**Cerebro-spinal Meningitis.**—The number of deaths from this and allied causes, returned in 1881, was 330, the greatest fatality being in the months of May and August, and the least in January. Of the cause distinctly denominated as cerebro-spinal meningitis, there were 41 deaths; of spinal meningitis, there were 123; of spinal fever, 136; of meningitis, 21; and of spotted fever, 9. Some meteorological conditions in connection with this disease may be studied in Exhibit 15.

**EXHIBIT 15.—CEREBRO-SPINAL MENINGITIS, ETC.—Deaths Returned as having occurred in Michigan from Cerebro-spinal Meningitis, Spotted Fever, Spinal Meningitis, Meningitis, and Spinal Fever, by Months, during the Year 1881, and some coincident Meteorological conditions.**

MONTHS IN ORDER BY NUMBER OF DEATHS, FROM CEREBRO-SPINAL MENINGITIS, SPOTTED FEVER, SPINAL MENINGITIS, MENINGITIS, AND SPINAL FEVER, GREAT-EST FIRST.	Deaths from Cerebro-Spinal Meningitis, Etc., 1881.		Temperature, Degrees,—Fahr.		Humidity of Atmosphere, Etc.—Monthly Averages.		Ozone,—Relative. Maximum = 10.		Average Velocity of Wind, Miles per Hour,—by Registering Anemometer.	Rain and Melted Snow, in Inches.	Pressure of Atmosphere. Inches of Mercury. (Reduced to 32° F.)			
	Number.	Per Cent. of Total.	Average Daily Range during Day and following Night by Reg. Ther. Obs. at 7 A. M.	Average of Daily Observations at 7 A. M., 2 P. M., and 9 P. M.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor in Cubic Foot of Air. <sup>a</sup>	Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.			Range of Barometer.		Average Pressure.	
											Monthly, and Year.	Average, Daily.		
Year, 1881...	330	100.00	19.84	49.59	70	3.54	4.00	4.66	9.6	35.28	1.402	.186	29.017	
More than the Av. No. of Deaths.	May...	42	12.73	24.10	66.94	61	4.84	3.94	4.26	8.4	2.97	.707	.116	29.033
	Aug. ...	42	12.73	24.48	74.63	62	5.80	4.45	3.53	7.0	2.05	.577	.106	29.063
	April...	39	11.82	21.33	43.23	64	2.43	4.50	6.07	9.8	1.65	.717	.149	28.973
	July...	30	9.09	23.32	75.41	62	6.08	4.45	4.10	8.1	1.63	.527	.089	29.035
	Oct.....	30	9.09	19.84	53.63	75	3.94	2.77	3.52	8.7	5.60	.828	.206	29.089
Average ....	28	8.33	19.84	49.59	70	3.54	4.00	4.66	9.6	2.94	.843	.186	29.017	
Less than the Av. No. of Deaths.	Sept...	26	7.88	22.53	71.33	65	5.59	4.12	3.57	10.3	3.24	.654	.150	28.999
	March.	24	7.27	14.68	30.59	78	1.76	4.52	6.00	10.4	2.14	1.017	.214	28.821
	June...	24	7.27	21.43	65.99	67	5.07	3.73	4.80	8.4	3.66	.541	.154	28.940
	Nov....	21	6.36	15.57	38.78	74	2.37	3.87	5.30	14.6	4.39	1.069	.279	29.037
	Feb....	20	6.06	19.61	22.27	80	1.40	3.75	5.54	11.0	3.92	1.326	.302	29.071
	Dec....	19	5.76	12.55	35.28	75	2.10	3.39	3.77	11.2	1.76	.947	.215	29.056
	Jan....	13	3.94	18.65	16.98	81	1.08	4.52	5.45	7.3	2.27	1.202	.248	29.077

<sup>a</sup> See foot-notes to Exhibit K, page 256.

<sup>b</sup> Exceptions to the proposition that the Average Daily Range of Temperature was *greater* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

<sup>c</sup> Exceptions to the proposition that the Average Temperature was *higher* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

<sup>d</sup> Exceptions to the proposition that the Relative Humidity was *less* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

<sup>e</sup> Exceptions to the proposition that the Absolute Humidity was *greater* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

<sup>f</sup> Exceptions to the proposition that the Ozone was *less* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.

<sup>g</sup> Exceptions to the proposition that the Atmospheric Pressure indicated by the barometer, was *less* than the average in months when *more* than the average number of deaths occurred, and *vice versa*.



*Cephalitis*.—There were 359 deaths in Michigan in 1881 from cephalitis. The greatest proportion of this number occurred in the month of August, and it is not improbable that a considerable number were due to complete or partial sunstroke in the preceding month. It will be seen that only a very small number of deaths from this cause occurred in the cold months.

EXHIBIT 22.—CEPHALITIS.—Deaths Returned as having occurred in Michigan, from Cephalitis, by Months, during the Year 1881, and some coincident Meteorological conditions.

MONTHS IN ORDER BY NUMBER OF DEATHS FROM CEPHALITIS, GREATEST FIRST.	Deaths from Cephalitis, 1881.		Tempera- ture,— Degrees Fahr.		Humidity of Atmosphere, Etc.,—Monthly Averages.				Ozone,— Relative. Maximum = 10.		Average Velocity of Wind, Miles per Hour,—by Registering Anemometer.	Rain-fall, in Inches.	Average Pressure of Atmosphere. (Barometer Reduced to 32° Fahr.)
	Number.	Per Cent. of Total.	Average Daily Range dur- ing Day and following Night, by Reg. Thermom- eters. Observed at 7 A. M.	Average of Daily Observa- tions at 7 A. M., 2 P. M., and 9 P. M.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Va- por in Cubic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor inhaled by one per- son in 24 hours. <sup>a</sup>	Weight, in Troy Ounces, of Vapor exhaled from Air passages in 24 hours, in excess of vapor inhaled. <sup>a</sup>	Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.			
Year, 1881.....	*359	100.00	19.54	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	35.28	29.017
More than Av. No. of Deaths,													
August....	57	15.88	24.48	74.63	62	5.80	2.63	8.05	4.45	3.53	7.0	2.05	29.063
September	43	11.98	22.53	71.33	65	5.59	3.49	8.19	4.12	3.57	10.3	3.24	28.999
October....	38	10.58	19.84	53.63	75	3.94	2.45	9.22	2.77	3.32	8.7	5.60	29.089
July.....	31	8.63	23.32	75.41	62	6.08	3.80	7.88	4.45	4.10	8.1	1.63	29.035
Average.....	30	8.33	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	2.94	29.017
Less than the Av. Number of Deaths,													
March.....	29	8.08	14.68	30.59	78	1.76	1.10	10.58	4.52	6.00	10.4	2.14	28.821
December.	29	8.08	12.55	35.28	75	2.10	1.31	10.37	3.39	3.77	11.2	1.76	29.056
April.....	28	7.80	<sup>b</sup> 21.33	43.23	<sup>d</sup> 64	2.49	1.56	10.12	4.50	6.07	9.8	1.65	28.978
November	26	7.24	15.57	38.78	74	2.37	1.48	10.20	3.87	5.30	14.6	4.39	29.037
June.....	24	6.69	<sup>b</sup> 21.43	<sup>c</sup> 65.99	<sup>d</sup> 67	<sup>e</sup> 5.07	3.17	8.51	3.73	4.80	8.4	3.66	28.940
February.	21	5.85	19.61	22.27	80	1.40	.88	10.80	3.75	5.54	11.0	3.92	29.071
May.....	17	4.73	<sup>b</sup> 24.10	<sup>c</sup> 66.94	<sup>d</sup> 61	<sup>e</sup> 4.84	3.03	8.65	3.94	4.26	8.4	2.97	29.038
January....	16	4.46	18.65	16.98	81	1.03	.68	11.00	4.52	5.45	7.3	2.27	29.077

\* Excluding 2 deaths in unknown month.

<sup>a</sup> See foot-notes to Exhibit K, page 256.

<sup>b</sup> Exceptions to the proposition that the Daily Range of Temperature was greater than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>c</sup> Exceptions to the proposition that the Daily Temperature was greater than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>d</sup> Exceptions to the proposition that the Relative Humidity was less than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>e</sup> Exceptions to the proposition that the Absolute Humidity was greater than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>f</sup> Exceptions to the proposition that the Ozone was less than the average in months when more than the average number of deaths occurred, and vice versa.

*Congestive Chills.*—Eighty deaths were returned as having occurred from this cause in 1881, August and September being the months of greatest mortality. Very few deaths from this cause occurred in the colder months.

EXHIBIT U.—CONGESTIVE CHILLS.—Deaths Returned as having occurred in Michigan from Congestive Chills, by Months, during the Year 1881, and some coincident Meteorological conditions.

MONTHS IN ORDER BY NUM- BER OF DEATHS FROM CONGES- TIVE CHILLS, GREATEST FIRST.	Deaths from Con- gestive Chills, 1881.		Temperature, Degrees,— Fabr.		Humidity of Atmosphere, Etc.,—Monthly Averages.				Ozone,—Rel- ative. Max- imum = 10.		Average Velocity of Wind, Miles per Hour, — by Registering Anemometer,		Rain and Melted Snow, in Inches.		Pressure of Atmos- phere. Inches of Mer- cury. (Reduced to 32° F.)			
	Number.	Per Cent. of Total.	Average Daily Range during Day and following Night, by Register- ing Therm'ter. Observed at 7 A.M.		Average of Daily Observations at 7 A. M., 2 P. M., and 9 P. M.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor in Cu- bic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Inhaled by one person in 24 hours. <sup>a</sup>	Weight, in Troy Ounces, of Vapor exhaled from Air passages in 24 hours, in excess of vapor inhaled <sup>a</sup>	Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.					Range of Barometer.		
			Monthly, and Year.	Average, Daily.												Average Pressure.		
Year, 1881.	*80	100.00	19.84	49.59	70	3.34	2.21	9.47	4.00	4.66	9.6	35.28	1.402	.186	29.017			
More than the Av. No. of Deaths.	Aug...	13	16.25	24.48	74	63	5.80	3.63	8.05	* 4.45	3.53	7.0	2.05	f. 577	* .106	29.063		
	Sept...	11	13.75	22.53	71.33	65	5.59	3.49	8.19	* 4.12	3.57	10.3	3.24	f. 634	* .150	28.999		
	Oct...	9	11.25	19.84	53.63	75	3.94	2.46	9.22	2.77	3.52	8.7	5.60	f. 828	.206	29.089		
	Mar...	7	8.75	b 14.63	c 30.59	78	d 1.76	1.10	10.58	* 4.52	* 6.00	10.4	2.14	1.017	.214	b 28.821		
	May...	7	8.75	24.10	66.94	61	4.84	3.03	8.65	3.94	4.26	8.4	2.97	f. 707	* .116	29.038		
	July...	7	8.75	23.32	75.41	62	6.08	3.80	7.82	* 4.45	4.10	8.1	1.63	f. 527	* .089	29.035		
Average....	6.7	8.33	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	2.94	.843	.186	29.017			
Less than the Av. No. of Deaths.	June...	6	7.50	b 21.43	c 65.99	67	d 5.07	3.17	* 5.51	* 3.73	4.80	8.4	3.66	.541	.154	28.940		
	Apr...	5	6.25	b 21.33	43.23	61	2.49	1.56	10.12	4.50	6.07	9.8	1.65	.717	.149	28.978		
	Dec...	5	6.25	12.55	35.28	75	2.10	1.31	10.37	* 3.39	* 3.77	11.2	1.76	f. 947	* .215	b 29.086		
	Feb...	4	5.00	12.61	22.27	80	1.40	.88	10.80	* 3.75	5.54	11.0	3.92	f. 1326	* .302	b 29.071		
	Jan...	3	3.75	18.65	16.98	81	1.08	.68	11.00	4.52	5.45	7.3	2.27	f. 1202	* .248	b 29.077		
	Nov...	3	3.75	15.57	33.78	74	2.37	1.48	10.20	* 3.87	5.30	14.6	4.39	f. 1063	* .279	b 29.057		

\* Excluding 1 in unknown month.

<sup>a</sup> See foot-notes to Exhibit K, page 256.

<sup>b</sup> Exceptions to the proposition that the Average Daily Range of Temperature was greater than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>c</sup> Exceptions to the proposition that the Average Daily Temperature was higher than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>d</sup> Exceptions to the proposition that the Absolute Humidity was greater than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>e</sup> Exceptions to the proposition that the Ozone was less than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>f</sup> Exceptions to the proposition that the Range of Barometer was greater than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>g</sup> Exceptions to the proposition that the Average Daily Range of Barometer was greater than the average in months when more than the average number of deaths occurred, and vice versa.

<sup>h</sup> Exceptions to the proposition that the Atmospheric Pressure indicated by the Barometer was greater than the average in the average number of deaths occurred, and vice versa.



*Intermittent Fever.*—Exhibit W enables us to study facts relating to intermittent fever and coincident meteorological conditions. Although a disease widely prevalent in Michigan, it is far less so than in previous years, and the number of deaths from this cause is comparatively few. The greatest number of deaths from intermittent fever was in October, and the least in January.

EXHIBIT W.—INTERMITTENT FEVER.—Deaths returned as having occurred in Michigan from Intermittent Fever, by Months, during the Year 1881, and some coincident Meteorological conditions.

MONTHS IN ORDER BY NUM- BER OF DEATHS FROM INTER- MITTENT FEVER, GREATEST FIRST.	Deaths from Inter- mittent Fever, 1881.		Temperature, Degrees,— Fahr.		Humidity of Atmos- phere, Etc.,—Monthly Averages.				Ozone,—Rel- ative. Maximum = 10.		Average Velocity of Wind, Miles per Hour, — by Registering Anemometer.	Rain and Melted Snow, in Inches.	Pressure of Atmos- phere. Inches of Mercury. (Reduced to 32° F.)			
	Number.	Per Cent. of Total.	Average Daily Range during Day and following Night, by Register- ing Therm'ts. Observed at 7 A. M.	Average of Daily Observations at 7 A. M., 2 P. M., and 9 P. M.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor in Cu- bic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Inhaled by one person in 24 hours. <sup>a</sup>	Weight, in Troy Ounces, of Vapor exhaled from Air passages in 24 hours in excess of vapor inhaled. <sup>a</sup>	Day—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.						
													Monthly, and Year.	Average, Daily.	Average Pressure.	
Year, 1881.	*43	100.00	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	35.28	1.402	.186	29.017	
More than Av. No. of Deaths.	Oct...	9	20.93	19.84	53.53	75	3.94	2.46	9.22	2.77	3.52	8.7	5.60	.828	.206	29.089
	Sept...	7	16.28	22.53	71.33	65	5.59	3.49	8.19	* 4.12	3.57	10.3	3.24	.654	.150	28.999
	Aug...	5	11.63	24.48	74.63	62	5.80	3.63	8.05	* 4.45	3.53	7.0	2.05	.577	.106	29.063
	May...	4	9.30	24.10	66.94	61	4.84	3.03	8.65	3.94	4.26	8.4	2.97	.707	.116	29.038
Average...	4	8.33	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	2.94	.843	.186	29.017	
Less than the Average No. of Deaths.	April	3	6.98	* 21.33	43.23	64	2.49	1.50	10.12	4.50	6.07	9.8	1.65	.717	.149	28.978
	June.	3	6.98	* 21.43	* 65.99	67	* 5.07	3.17	8.51	* 3.73	4.80	8.4	3.66	.841	.154	28.940
	July...	3	6.97	* 23.32	* 75.41	62	* 6.08	3.80	7.88	4.45	* 4.10	8.1	1.63	.527	.089	29.035
	Feb...	2	4.65	19.61	22.27	80	1.40	.88	10.80	* 3.75	5.54	11.0	3.92	1.326	.302	29.071
	Mar...	2	4.65	14.68	30.59	78	1.76	1.10	10.58	4.52	6.00	10.4	2.14	1.017	.214	28.921
	Nov...	2	4.65	15.57	38.78	74	2.37	1.48	10.20	* 3.87	5.30	14.6	4.39	1.069	.279	29.037
	Dec...	2	4.65	12.55	35.28	75	2.10	1.31	10.37	* 3.39	* 3.77	11.2	1.76	.947	.215	29.056
Jan...	1	2.33	18.65	16.98	81	1.08	.68	11.00	4.52	5.45	7.3	2.27	1.202	.248	29.077	

\* Excluding 1 in unknown month.

† See foot-notes to Exhibit K, page 256.

‡ Exceptions to the proposition that the Average Daily Range of Temperature was greater than the average in months when more than the average number of deaths occurred, and vice versa.

§ Exceptions to the proposition that the Average Daily Temperature was higher than the average in months when more than the average number of deaths occurred, and vice versa.

|| Exceptions to the proposition that the Absolute Humidity was greater than the average in months when more than the average number of deaths occurred, and vice versa.

¶ Exceptions to the proposition that the Ozone was less than the average in months when more than the average number of deaths occurred, and vice versa.

‡ Exceptions to the proposition that the Atmospheric Pressure indicated by the Barometer was less than the average in months when more than the average number of deaths occurred, and vice versa.

*Typhoid Fever.*—Deaths from typhoid fever in Michigan, in 1881, numbered 883. This number is about 25 per cent. greater than in any of the preceding seven years, the next largest number being in 1874, when there were 611 deaths returned. The greatest per cent. of deaths from this cause in 1881 occurred in the month of September, and the least in May. Coincident meteorological conditions are presented in Exhibit X.

**EXHIBIT X.—TYPHOID FEVER.**—Deaths Returned as having occurred in Michigan from Typhoid Fever, by Months, during the Year 1881, and some coincident Meteorological conditions.

MONTHS IN ORDER BY NUMBER OF DEATHS FROM TYPHOID FEVER, GREATEST FIRST.	Deaths from Typhoid Fever, 1881.		Tempera- ture,— Degrees Fahr.		Humidity of Atmosphere, Etc.—Monthly Averages.				Ozone,— Relative. Maximum = 10.		Average Velocity of Wind, Miles per Hour, by Registering Anemometer.	Rain and Melted Snow, in Inches.	Pressure of Atmos- phere. Inches of Mercury. (Reduced to 32° F.)		
	Number.	Per Cent. of Total.	Average Daily Range during Day and following Night by Register- ing Ther. Observed at 7 A. M.	Average of Daily Observations at 7 A. M., 2 P. M., and 9 P. M.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor in Cu- bic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Inhaled by one person in 24 hours. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Exhaled from Air passages in 24 hours in excess of vapor inhaled. <sup>a</sup>	Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.			Monthly, and Year.	Average, Daily.	Average Pressure.
Year, 1881...	883	100.00	10.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	35.28	1.402	.186	29.017
More than the Av. No. of Deaths.															
{ Oct...	178	20.16	19.84	53.63	75	3.94	2.46	9.22	2.77	3.52	8.7	5.60	.828	.206	29.089
{ Sept...	150	16.99	22.33	71.33	65	5.59	3.49	8.19	4.12	3.57	10.3	3.24	.654	.150	28.989
{ Nov...	149	16.87	15.57	48.78	74	2.37	1.48	10.20	3.87	5.30	14.6	4.39	1.069	.279	29.037
{ Dec...	108	12.23	12.35	43.58	75	2.10	1.31	10.37	3.39	3.77	11.2	1.76	.947	.215	29.006
{ Aug...	99	11.21	24.48	74.63	62	5.80	3.63	8.03	4.45	3.53	7.0	2.05	.577	.106	28.063
Average....	74	8.33	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	7.94	.843	.186	29.017
Less than the Average Number of Deaths.															
{ July...	45	5.10	23.32	75.41	62	6.08	3.80	7.88	4.45	4.10	8.1	1.62	.527	.089	29.053
{ June...	35	3.96	21.43	65.99	67	5.07	3.17	8.51	3.73	4.80	8.4	3.66	.541	.154	28.940
{ April...	34	3.85	21.33	43.23	64	2.49	1.56	10.12	4.50	6.07	9.8	1.65	.717	.149	28.978
{ May...	27	3.06	24.10	68.94	61	4.84	3.03	8.65	3.94	4.26	8.4	2.97	.707	.116	29.038
{ Mar...	23	2.60	14.68	39.59	78	1.76	1.10	10.58	4.52	6.00	10.4	2.14	1.017	.214	28.821
{ Jan...	20	2.27	18.65	16.98	81	1.08	.65	11.00	4.52	3.45	7.3	2.27	1.202	.248	29.077
{ Feb...	15	1.70	19.61	22.57	80	1.46	.88	10.80	3.75	3.54	11.0	3.92	1.326	.302	29.071

\* See foot-notes to Exhibit N, page 256.

\* Exceptions to the proposition that the Average Daily Range of Temperature was greater than the average in months when more deaths occurred, and vice versa.

\* Exceptions to the proposition that the Average Daily Range of Temperature was higher than the average in months when more deaths occurred, and vice versa.

\* Exceptions to the proposition that the Average Daily Range of Temperature was greater than the average in months when more deaths occurred, and vice versa.

\* Exceptions to the proposition that the Average Daily Range of Temperature was greater than the average in months when more deaths occurred, and vice versa.

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\* Exceptions to the proposition that the Average Daily Range of Temperature was greater than the average in months when more deaths occurred, and vice versa.

\* Exceptions to the proposition that the Average Daily Range of Temperature was greater than the average in months when more deaths occurred, and vice versa.



EXHIBIT 16.—DIARRHEA.—Deaths in Michigan from Diarrhea in July and August of each of the Years 1873-1881, the Average for Nine Years ending with 1881, and some coincident Meteorological conditions, at the Agricultural College, Michigan.

JULY AND AUGUST OF EACH OF THE YEARS 1873-1881.		Number of Deaths from Diarrhea.	Temperature.—F.; Mean of 3 Daily Ob- servations,—7 A. M., 2 P. M., and 9 P. M.				Humidity of Atmosphere, Etc.— Monthly Averages.		Ozone.— Relative. Maximum = 10.		Average Velocity of Wind, Miles per Hour,—by Registering Anemometer.	Rain and Melted Snow, in Inches.	Pressure of Atmosphere. Inches of Mercury. (Reduced to 32° F.)		
			Average Range.		Average.	Relative Humidity, or Per Cent. of Satur- ation.	Weight, in Grains, of Vapor in Cubic Foot of Air. <sup>a</sup>	Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.	Range of Barometer.			Average Pressure.		
			Daily.	From Day to Day,—2 P. M. to 2 P. M.						Monthly.				Average, Daily.	
Average ..	{ July. Aug.	64 95	17.14 18.18	18.85 19.77	71.66 69.53	74 76	6.32 5.93	2.98 3.17	2.37 1.98	6.6 6.1	3.076 2.500	.542 .522	.152 .140	29.027 29.036	
1873.....	{ July. Aug.	65 105	15.35 18.55	18.68 21.32	70.82 69.49	78 81	6.45 6.29	h 3.59 h 3.55	h 3.06 h 2.65	..... .....	5.124 .796	.453 .574	.083 .084	28.914 28.927	
1874.....	{ July. Aug.	61 104	17.68 17.23	21.35 19.61	72.02 69.39	71 74	6.00 5.75	h 1.80 2.80	h 1.50 1.10	..... .....	2.566 1.278	.465 .503	.078 .065	28.907 28.924	
1875.....	{ July. Aug.	56 80	16.26 16.90	18.26 18.61	69.67 65.43	78 77	5.91 5.22	3.52 3.50	3.22 3.70	..... .....	2.420 1.470	.554 .806	.096 .652	29.044 29.025	
1876.....	{ July. Aug.	69 93	15.87 17.74	17.90 20.97	72.48 71.55	78 76	6.76 6.31	2.16 1.97	1.58 1.26	..... .....	2.100 1.280	.507 .459	.070 .061	29.009 29.048	
1877.....	{ July. Aug.	55 96	18.39 17.45	20.42 19.48	71.43 68.46	70 78	5.76 5.74	h 2.71 h 3.42	h 1.77 1.03	..... .....	2.250 6.570	.655 .401	.088 .056	29.062 29.046	
1878.....	{ July. Aug.	39 47	14.32 17.71	18.10 19.74	73.04 70.15	63 74	6.83 6.06	h 2.10 h 2.32	h 1.74 h 0.52	3.1 3.1	2.960 1.850	.611 .434	.068 .065	29.085 29.010	
1879.....	{ July. Aug.	44 82	16.81 19.06	18.90 20.90	74.03 70.00	71 70	6.30 5.58	h 2.90 h 2.58	h 2.13 h 1.76	8.6 8.4	2.190 1.610	.608 .355	.073 .068	29.057 29.100	
1880.....	{ July. Aug.	86 90	15.68 13.90	17.16 17.55	68.04 68.58	78 82	6.20 6.32	h 3.61 h 3.97	2.23 2.23	6.5 5.9	6.270 6.020	.449 .640	.057 .071	29.068 29.126	
1881.....	{ July. Aug.	105 157	23.87 25.06	.....	73.43 72.69	73 70	6.65 6.09	h 4.45 h 4.45	h 4.10 h 3.33	8.1 7.0	1.810 1.630	.....	.....	29.093 29.117	

<sup>a</sup> See foot-notes to Exhibit K, page 256.

<sup>b</sup> Exceptions to the proposition that the Average Daily Range of Temperature was less than the average for July or August in months of July or August when more than the average number of deaths from Diarrhea occurred, and vice versa.

<sup>c</sup> Exceptions to the proposition that the Average Range of Temperature "from day to day" was less than the average for July or August in months of July or August when more than the average number of deaths from Diarrhea occurred, and vice versa.

<sup>d</sup> Exceptions to the proposition that the Average Temperature was higher than the average for July or August in months of July or August when more than the average number of deaths from Diarrhea occurred, and vice versa.

<sup>e</sup> Exceptions to the proposition that the Average Relative Humidity was greater than the average for July or August in months of July or August when more than the average number of deaths from Diarrhea occurred, and vice versa.

<sup>f</sup> Exceptions to the proposition that the Absolute Humidity was greater than the average for July or August in months of July or August when more than the average number of deaths from Diarrhea occurred, and vice versa.

<sup>g</sup> Exceptions to the proposition that the Day or Night Ozone was less than the average for July or August in months of July or August when more than the average number of deaths from Diarrhea occurred, and vice versa.

<sup>h</sup> Exceptions to the proposition that the amount of rain and melted snow was greater than the average for July or August in months of July or August when more than the average number of deaths from Diarrhea occurred, and vice versa.

<sup>i</sup> Exceptions to the proposition that the Atmospheric Pressure was more than the average for July or August in months of July or August when more than the average number of deaths from Diarrhea occurred, and vice versa.



**EXHIBIT 21.—DIARRHEA.—Deaths Returned as having occurred in Michigan from Diarrhea, by Months, during the Year 1881, and some coincident Meteorological conditions at the Office of the State Board of Health, at Lansing.**

MONTHS IN ORDER BY NUMBER OF DEATHS FROM DIARRHEA, GREATEST FIRST.	Deaths from Diarrhea, 1881.		Tempera- ture,— Degrees Fahr.		Inches of Rain and Melted Snow.	Humidity of Atmosphere. Av. of Obs. at 7 A. M., 2 P. M., and 9 P. M., daily.		Ozone, Rela- tive.—Scale of 10 Degrees of Colora- tion.		Average Velocity of Wind, Miles per Hour, by Registering Anemometer.	Pressure of Atmosphere. Inches of Mercury. (Reduced to 32° F.)			
	Number.	Per Cent. of Total.	Average Daily Range during day and following night, by Reg- isters. Observed at 7 A.M.	Average of Daily Observations at 7 A. M., 2 P. M., and 9 P. M.		Relative Humidity, or Per Cent. of Saturation.	Absolute Humidity.—Grains of Vapor in a Cubic Foot of Air. <sup>a</sup>	Day Observation.—7 A. M. to 2 P. M.	Night Observation.—9 P. M. to 7 A. M.		Range of Barometer.			
											Monthly, and for Year.	Average Daily Range of Observations at 7 A. M., 2 P. M., and 9 P. M.	Average Pressure.	
Year, 1881.....	501	100.00	19.84	49.59	35.28	70	3.54	4.00	4.66	9.6	1.402	.186	29.017	
More than the Av. No. of Deaths.	Aug.....	157	31.34	24.48	74.63	2.05	62	5.80	f 4.45	3.53	7.0	g .577	h .106	29.063
	July.....	105	20.96	23.32	75.41	1.63	62	6.08	f 4.45	4.10	8.1	g .527	h .089	29.035
	Sept.....	83	16.57	22.53	71.33	3.24	65	5.59	f 4.12	3.57	10.3	g .654	h .150	28.999
	June.....	45	8.98	21.43	65.99	3.66	67	5.07	3.73	f 4.80	8.4	g .541	h .154	28.940
Average.....	42	8.33	19.84	49.59	2.94	70	3.54	4.00	4.66	9.6	.843	.186	29.017	
Less than the Average No. of Deaths.	Oct.....	40	7.98	19.84	c 53.63	5.00	75	e 3.94	f 2.77	f 3.52	8.7	g .828	h .206	i 29.069
	May.....	17	3.39	b 24.10	c 66.94	2.97	d 61	e 4.84	f 3.94	f 4.26	8.4	g .707	h .116	i 29.038
	Nov.....	14	2.79	15.57	38.78	4.39	74	2.37	f 3.87	5.30	14.6	g 1.069	h .279	i 29.037
	Dec.....	13	2.59	12.55	35.28	1.76	75	2.10	f 3.39	f 3.77	11.2	g .947	h .215	i 29.066
	March.....	12	2.40	14.68	30.59	2.14	78	1.76	4.52	6.00	10.4	g 1.017	h .214	28.821
	April.....	11	2.20	b 21.33	43.23	1.65	d 64	2.49	4.50	6.07	9.8	g .717	h .149	28.978
	Feb.....	4	.80	19.61	22.27	3.92	80	1.40	f 3.75	5.54	11.0	g 1.326	h .302	i 29.071
	Jan.....	—	—	18.65	16.98	2.27	81	1.08	4.52	5.45	7.3	g 1.202	h .248	i 29.077

<sup>a</sup> See foot-notes to Exhibit K, page 256.

<sup>b</sup> Exceptions to the proposition that *more* than the average number of deaths from Diarrhea occurred in months when the Average Daily Range of Temperature was *greater* than the average, and *vice versa*.

<sup>c</sup> Exceptions to the proposition that *more* than the average number of deaths from Diarrhea occurred in months when the Average Daily Temperature was *higher* than the average, and *vice versa*.

<sup>d</sup> Exceptions to the proposition that *more* than the average number of deaths from Diarrhea occurred in months when the Relative Humidity of the Atmosphere was *less* than the average, and *vice versa*.

<sup>e</sup> Exceptions to the proposition that *more* than the average number of deaths from Diarrhea occurred in months when the Absolute Humidity of the Atmosphere was *greater* than the average, and *vice versa*.

<sup>f</sup> Exceptions to the proposition that *more* than the average number of deaths from Diarrhea occurred in months when the Amount of Ozone in the Atmosphere was *less* than the average, and *vice versa*.

<sup>g</sup> Exceptions to the proposition that *more* than the average number of deaths from Diarrhea occurred in months when the

<sup>h</sup> Exceptions to the proposition that *more* than the average number of deaths from Diarrhea occurred in months when the

<sup>i</sup> Exceptions to the proposition that *more* than the average number of deaths from Diarrhea occurred in months when the

[Foot-notes to F

**Diarrhea.**—In 1881 there were 501 deaths from diarrhea returned as having occurred in Michigan. Not a single death from this cause was reported for the month of January, while 157 were recorded for the month of August. This is the largest number returned for this month in any year from 1873–1881 Exhibits 16 and 21 and Table XXI. present many interesting facts in regard to this cause of death.

**Dysentery.**—In 1881, there were 270 deaths returned from dysentery in this State. Table XXI. shows the geographical distribution in this State of deaths from diarrhea, dysentery, and typhoid fever.

**TABLE XXI.—DIARRHEA AND DYSENTERY.**—*Exhibiting for the State and for Eleven Geographical Divisions of the State, the Number of Deaths Returned as having occurred from Diarrhea and Dysentery, and from Typhoid Fever, and the Per Cent. of Deaths from each Disease to Deaths from All Causes, during the Year 1881.*

STATE AND GEOGRAPHICAL DIVISIONS. <sup>a</sup>	DIARRHEA, 1881. ACUTE AND CHRONIC.		DYSENTERY, 1881. ACUTE AND CHRONIC.		TYPHOID FEVER, 1881.	
	Number of Deaths, 1881.	Per Cent. to Deaths from All Causes, by Geographical Divisions.	Number of Deaths, 1881.	Per Cent. to Deaths from All Causes, by Geographical Divisions.	Number of Deaths, 1881.	Per Cent. to Deaths from All Causes, by Geographical Divisions.
STATE.....	501	2.60	270	1.40	884	4.60
Upper-peninsular .....	63	3.81	9	.83	71	6.55
Northwestern.....	14	2.71	3	.58	23	4.28
Northern.....	13	3.30	9	2.28	13	3.30
Northeastern .....	13	3.43	1	.26	14	3.69
Western.....	89	3.43	36	1.39	109	4.30
Northern-central .....			11	1.71	38	5.90
Bay and Eastern.....	81	2.67	23	1.05	136	4.21
Central .....	32	1.05	63	2.07	150	4.92
Southwestern.....	13	1.08	17	1.41	65	5.39
Southern-central .....	29	.98	44	1.49	128	4.34
Southeastern .....	154	4.71	44	1.35	138	4.23

<sup>a</sup> For counties included in each Division, see page 162.

occurred in months when the Average Daily Range of Barometer was *greater* than the average, and *vice versa*.

<sup>1</sup> Exceptions to the proposition that more than the average number of deaths from Diarrhea occurred in months when the Average Daily Pressure of the Atmosphere was *greater* than the average, and *vice versa*.

*Rheumatism.*—Deaths from this cause were most numerous, in this State in 1881, during the month of March. Exhibit 19 is a continuation of a system of tabulation that was introduced in the hope of obtaining some profitable results from its study, if continued.

EXHIBIT 19.—RHEUMATISM.—Deaths returned as having occurred in Michigan from Rheumatism, by Months, during the Year 1881, and some coincident Meteorological conditions.

MONTHS IN ORDER BY NUMBER OF DEATHS FROM RHEUMA- TISM,* GREATEST FIRST.	Deaths.		Tempera- ture,— Degrees Fahr.	Humidity of Atmosphere, Etc.,— Monthly Averages.				Ozone,— Relative. Maximum = 10.		Average Velocity of Wind, Miles per Hour,— by Registering Anemometer.	Rain and Melted Snow, in Inches.	Pressure of Atmos- phere. Inches of Mercury (Reduced to 32° Fahr.)				
	Number.	Per Cent. of Total.		Average Daily Range during Day and following Night, by Register- ing Therm'rs. Observed at 7 A. M. Average of Daily Observations at 7 A. M., 2 P. M., and 9 P. M.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor in Cubic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Inhaled by one person in 24 hours. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Exhaled from Air passages in 24 hours in excess of vapor inhaled. <sup>a</sup>	Day,—7 A. M. to 2 P. M.			Night,—9 P. M. to 7 A. M.	Monthly, and Year.	Average, Daily.	Average Pressure.	
Year, 1891.	112	100.00	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	35.28	1.402	.186	29.017	
More than the Av. No. of Deaths.	March	14	12.50	14.68	30.59	73	b 1.76	1.10	10.58	c 4.52	c 6.00	10.4	2.14	1.017	.214	d 28.921
	Aug...	12	10.71	24.48	74.63	62	5.80	3.63	8.05	c 4.45	3.53	7.0	2.05	.577	.106	29.063
	Sept...	12	10.71	22.53	71.33	65	5.59	3.49	8.19	c 4.12	3.57	10.3	3.24	.634	.150	d 28.999
	May...	11	9.82	24.10	66.94	61	4.84	3.03	8.65	c 3.94	4.26	8.4	2.97	.707	.116	29.038
	July...	11	9.82	23.32	75.41	62	6.08	3.80	7.88	c 4.45	4.10	8.1	1.63	.527	.089	29.035
	Dec...	10	8.93	12.55	35.28	75	b 2.10	1.31	10.37	c 3.39	3.77	11.2	1.76	.947	.215	29.056
Average...	9.3	8.33	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	2.94	.843	.186	29.017	
Less than the Av. No. of Deaths.	April	9	8.04	21.33	43.23	64	2.49	1.56	10.12	c 4.50	6.97	9.8	1.65	.717	.149	28.978
	Nov...	9	8.04	15.57	38.78	74	2.37	1.48	10.20	c 3.87	5.30	14.6	4.39	1.069	.279	d 29.037
	Feb...	8	7.14	19.61	22.27	80	1.40	.88	10.80	c 3.75	5.54	11.0	3.92	1.328	.302	d 29.071
	Jan...	7	6.25	18.65	16.98	81	1.08	.68	11.00	c 4.52	5.45	7.3	2.27	1.202	.248	d 29.077
	Oct...	5	4.46	19.84	53.63	75	b 3.94	2.46	9.22	c 2.77	c 3.52	8.7	5.60	.838	.206	d 29.069
	June...	4	3.57	21.43	65.99	67	b 5.07	3.17	8.51	c 3.73	4.80	8.4	3.66	.541	.154	28.940

\* Includes Rheumatism of Heart, Inflammatory, Sciatic, Spinal, and Rheumatism.

<sup>a</sup> See foot-notes to Exhibit K, page 256.

<sup>b</sup> Exceptions to the proposition that the air contains more than the average amount of vapor of water in months when more than the average number of deaths from Rheumatism occurred, and vice versa.

<sup>c</sup> Exceptions to the proposition that there was less than the average Ozone in the air in months when more than the average number of deaths from Rheumatism occurred, and vice versa.

<sup>d</sup> Exceptions to the proposition that the Atmospheric Pressure was greater than the average in months when more than the average number of deaths from Rheumatism occurred, and vice versa.

*Scarlet Fever.*—Three hundred and eighty-two deaths were returned as having occurred in Michigan in 1881 from scarlet fever. With the exception of 1880, this is a number less than has been reported in eight years. According to the returns, the greatest mortality from this cause was in the month of May, and the least was in the month of November. The mortality was quite evenly distributed through most of the months.

**EXHIBIT Y.—SCARLET FEVER.**—*Deaths Returned as having occurred from Scarlet Fever in Michigan during the year 1881, and some coincident Meteorological conditions.*

MONTHS IN ORDER BY NUMBER OF DEATHS FROM SCARLET FEVER, GREATEST FIRST.		Deaths from Scarlet Fever, 1881.		Tempera- ture,— Degrees Fahr.		Humidity of Atmosphere, Etc.,—Monthly Averages.				Ozone,— Relative. Maximum = 10.		Average Velocity of Wind, Miles per Hour,—by Registering Anemometer.		Average Pressure of Atmosphere. (Barometer Reduced to 32° Fabr.)
		Number.	Per Cent. of Total.	Average Daily Range dur- ing Day and following Night by Reg. Therm's. Observed at 7 A. M.	Average of Daily Observa- tions at 7 A. M., 2 P. M., and 9 P. M.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor in Cubic Foot of Air.*	Weight, in Troy Ounces, of Vapor Inhaled by one per- son in 24 hours.*	Weight, in Troy Ounces, of Vapor Exhaled from Air passages in 24 hours, in excess of vapor inhaled.*	Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.			
YEAR, 1881.....		*382	100.00	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	29.017	
More than the Av. No. of Deaths.	May.....	45	11.78	21.10	b 66.94	61	c 4.84	3.03	8.65	3.94	4.26	8.4	29.038	
	January.....	41	10.73	18.65	16.98	81	1.08	.68	11.00	4.52	5.45	7.3	29.077	
	December.....	37	9.69	12.55	35.28	75	2.10	1.31	10.37	3.39	3.77	11.2	29.056	
	April.....	36	9.42	21.33	43.23	64	2.49	1.56	10.12	4.50	6.07	9.8	28.978	
	July.....	35	9.16	23.32	b 75.41	62	c 6.08	3.80	7.88	4.45	4.10	8.1	29.035	
	August.....	35	9.16	24.48	b 74.63	62	c 5.80	3.63	8.05	4.45	3.53	7.0	29.063	
	March.....	34	8.90	14.65	30.59	78	1.76	1.10	10.58	4.52	6.06	10.4	28.821	
	June.....	33	8.64	21.43	b 65.99	67	c 5.07	3.17	8.51	3.73	4.80	8.4	28.940	
Average.....		32	8.33	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	29.017	
Less than Av. No. of Deaths.	February.....	31	8.12	19.61	b 22.27	80	c 1.40	.88	10.80	3.75	5.54	11.0	29.071	
	September.....	23	6.02	22.53	71.33	65	5.59	3.49	8.19	4.12	3.57	10.3	28.999	
	October.....	17	4.45	19.84	53.63	75	3.94	2.46	9.22	2.77	3.52	8.7	29.089	
	November.....	15	3.93	15.57	b 35.78	74	c 2.37	1.48	10.20	3.87	5.30	14.6	29.037	

\* Excluding 1 death in unknown month.

• See foot-notes to Exhibit K, page 256.

• Exceptions to the proposition that the Average Daily Temperature was lower than the average in months when more than the average number of deaths from Scarlet Fever occurred, and vice versa.

• Exceptions to the proposition that the Absolute Humidity of the Atmosphere was less than the average in months when more than the average number of deaths from Scarlet Fever occurred, and vice versa.

*Consumption.*—One thousand nine hundred and fifty-four deaths were caused by consumption in Michigan in 1881. Considering the ratio of males to females in the State, the mortality from this disease was considerably greater among the females. The greatest number of deaths occurred in May; the least number in January. The number of deaths from this disease in each of the years 1874–1880, is as follows: in 1874, 1,392 deaths; in 1875, 1,479; in 1876, 1,500; in 1877, 1,664; in 1878, 1,641; in 1879, 1,680; and in 1880, 1,829. The number of deaths from this cause in 1881 exceeds the largest number in any of those years by 125.

**EXHIBIT N.—CONSUMPTION.**—*By Sex, the Number of Deaths Returned as having occurred in Michigan from Consumption during the Year 1881, by Months Equalized to Uniform length of 30.44 days each; also the Average Number per Month. (Deaths in unknown month excluded.)*

SEX.	TOTAL.	DEATHS FROM CONSUMPTION IN 1881, BY MONTHS OF EQUAL LENGTH.												
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Monthly Av.
Total....	1,948	113	151	163	209	177	148	156	156	157	161	165	194	163
Males....	606	45	83	81	106	75	67	67	73	63	70	83	83	76
Females.	1,042	68	68	81	103	102	81	89	82	94	91	82	101	87

\* Excluding 7 deaths in unknown month; 1 male gained and 7 females lost in equalizing. The number of deaths from consumption, as returned, is 1,954.



**EXHIBIT O.—CONSUMPTION.**—Deaths from Consumption, Returned as having occurred in Michigan, by Months, during the Year 1881, and some coincident Meteorological conditions.

MONTHS IN ORDER BY NUM- BER OF DEATHS FROM CONSUMPTION, GREATEST FIRST.	Deaths from Con- sumption, 1881.		Tempera- ture,— Degrees Fahr.		Humidity of Atmosphere, Etc.,—Monthly Averages.				Ozone,— Relative. Maximum = 10.		Average Velocity of Wind, Miles per Hour,—by Registering Anemometer.	Average Pressure of Atmosphere. (Barometer Reduced to 32° Fahr.)
	Number.	Per Cent. of Total.	Average Daily Range dur- ing Day and following Night by Reg. Therm. Obs. at 7 A. M.	Average of Daily Observa- tions at 7 A. M., 2 P. M., and 9 P. M.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Va- por in Cubic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor inhaled by one per- son in 24 hours. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Exhaled from Air passages in 24 hours in excess of vapor inhaled. <sup>a</sup>	Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.		
Year, 1881.....	1,947	100.00	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	29.017
More than the Av. No. of Deaths.												
April.....	206	10.58	21.33	43.23	64	2.49	1.56	10.12	4.50	6.07	9.8	28.978
Dec.....	198	10.17	12.55	35.28	75	2.10	1.31	10.37	3.39	3.77	11.2	29.056
May.....	180	9.21	24.10	66.94	61	4.84	3.03	8.65	3.94	4.26	8.4	29.038
March.....	164	8.42	14.68	30.59	78	1.76	1.10	10.58	4.52	6.00	10.4	28.821
Oct.....	164	8.42	19.84	53.63	75	3.94	2.46	9.22	2.77	3.52	8.7	29.089
Nov.....	163	8.37	15.57	38.78	74	2.37	1.48	10.20	3.87	5.30	14.6	29.037
Average.....	162	8.33	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	29.017
Less than the Av. No. of Deaths.												
July.....	159	8.17	23.32	75.41	62	6.08	3.80	7.88	4.45	4.10	8.1	29.035
Aug.....	152	8.12	24.48	74.63	62	5.80	3.63	8.05	4.45	3.53	7.0	29.063
Sept.....	155	7.96	22.53	71.33	65	5.59	3.49	8.19	4.12	3.57	10.3	28.999
June.....	146	7.50	21.43	65.99	67	5.07	3.17	8.51	3.73	4.80	8.4	28.940
Feb.....	139	7.14	19.61	22.27	80	1.40	.88	10.80	3.75	5.54	11.0	29.071
Jan.....	115	5.91	18.65	16.98	81	1.08	.68	11.00	4.52	5.45	7.3	29.077

<sup>a</sup> See foot-notes to Exhibit K, page 256.

<sup>b</sup> Excluding 7 in unknown month.

<sup>c</sup> Exceptions to the proposition that the Temperature was *higher* than the average in months when *more* than the average number of deaths from Consumption occurred, and *vice versa*.

<sup>d</sup> Exceptions to the proposition that *more* than an average amount of vapor was inhaled in months in which there was *more* than the average number of deaths from Consumption, and *vice versa*.

*Pneumonia*.—Particulars as to this cause of deaths are amply shown in Exhibits 18, P, and 17. In a period of ten years the greatest number of deaths from pneumonia has occurred in the month of March seven times, twice in December, and once in February. In Exhibit P the influence of the meteorological conditions upon the mortality from pneumonia may be studied. The propositions made in this Exhibit are the opposite of those made in Exhibit O concerning consumption, and to each proposition in Exhibit P there are only two exceptions.

EXHIBIT 18.—PNEUMONIA.—Deaths in Michigan from Pneumonia in February and March of each of the Years 1873-1881, the Average for Nine Years ending with 1881, and some coincident Meteorological conditions, at the Agricultural College, Michigan.

FEBRUARY AND MARCH OF EACH OF THE YEARS 1873-1881.		Number of Deaths from Pneumonia.	Temperature,—F.; Mean of 3 Daily Observations—7 A. M., 2 P. M., and 9 P. M.			Humidity of Atmosphere, Etc.,— Monthly Averages.		Ozone,— Relative. Maximum = 10.		Average Velocity of Wind, Miles per Hour,—by Registering Anemometer.	Rain and Melted Snow, in Inches.	Pressure of Atmosphere. Inches of Mercury. (Reduced to 32° F.)		
			Average Range.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor, in Cubic Foot of Air. <sup>a</sup>	Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.	Range of Barometer.				Average Pressure.		
								Daily.	From Day to Day, 2 P. M. to 2 P. M.				Monthly.	Average, Daily.
Av...	February..	79	14.76	16.98	23.54	87	1.54	4.77	5.56	9.6	1.902	1.092	.168	29.022
	March.....	100	14.10	16.31	31.30	84	1.90	4.98	5.69	10.6	1.798	1.200	.175	28.968
1873..	February..	110	14.61	18.71	19.10	91	k 1.43	4.21	o 5.93	.....	.770	.842	.197	28.847
	March.....	80	14.16	16.61	23.30	71	l 1.52	n 4.09	5.80	.....	1.730	1.307	.218	r 28.852
1874..	February..	57	c 12.32	e 14.07	e 25.51	89	k 1.55	5.53	6.10	.....	1.550	1.387	.171	a 28.928
	March.....	108	13.52	16.45	32.30	83	2.00	n 5.00	p 6.00	.....	1.788	1.081	.133	28.895
1875..	February..	116	20.14	21.57	e 8.35	94	k .73	m 5.78	o 6.57	.....	2.198	1.231	.206	28.875
	March.....	128	15.48	16.68	b 26.20	87	l 1.63	n 5.70	p 6.19	.....	1.020	1.231	.163	28.844
1876..	February..	71	c 12.76	e 16.66	e 27.38	84	k 1.59	5.76	7.27	.....	3.040	1.033	.176	29.063
	March.....	107	12.84	14.39	b 30.55	93	l 1.78	n 6.06	p 7.00	.....	4.840	1.812	.223	28.929
1877..	February..	56	14.79	17.71	e 32.31	85	k 1.85	m 4.54	o 4.14	.....	.000	1.007	.122	29.124
	March.....	64	15.29	17.29	24.51	91	1.53	5.29	6.06	.....	.560	1.119	.151	28.981
1878..	February..	37	e 14.59	e 15.93	e 28.07	89	k 1.91	5.00	o 5.33	5.0	2.740	1.033	.123	29.026
	March.....	59	d 12.06	16.77	b 40.90	83	l 2.80	n 4.68	p 4.94	6.7	.312	.942	.181	29.027
1879..	February..	92	11.46	14.79	e 20.40	92	k 1.23	4.54	5.01	.....	1.430	.964	.151	a 29.107
	March.....	114	12.74	15.65	33.19	78	1.93	3.93	4.30	12.4	1.570	.796	.137	r 29.102
1880..	February..	82	12.00	16.41	29.19	68	1.92	3.83	4.17	12.7	1.620	1.241	.197	a 29.077
	March.....	111	14.61	16.65	35.50	79	1.97	o 5.52	4.94	12.8	1.700	1.380	.197	r 29.181
1881..	February..	88	20.18	.....	e 21.58	93	1.66	3.75	5.54	11.0	3.770	.....	.....	a 29.132
	March.....	126	16.16	.....	b 30.28	86	1.93	4.52	p 6.00	10.4	2.660	.....	.....	28.899

\* See foot notes to Exhibit K, page 256.

c Three out of nine cases in which the Average Daily Range of Temperature and the deaths were both less than the average.

d One out of nine cases in which the Average Daily Range of Temperature and the deaths were both less than the average.

e Three out of eight cases in which the Range of Temperature "from day to day" and the number of deaths were both less than the average.

f Eight out of nine cases in which the Average Temperature was higher and the deaths less than the average, or vice versa.

g Four out of nine cases in which the Average Range of Temperature was higher and the deaths less than the average, or vice versa.

h Six out of nine cases in which the Range of Temperature was higher and the deaths less than the average, or both less than the average.

i Five out of nine cases in which the Range of Temperature was higher and the deaths less than the average, or both less than the average.

[Foot notes to Exhibit 18 continue.]

**EXHIBIT P.—PNEUMONIA.**—Deaths returned as having occurred from *Pneumonia*, in Michigan during the Year 1881, and some coincident *Meteorological conditions*.

MONTHS IN ORDER BY NUMBER OF DEATHS FROM PNEUMONIA, GREATEST FIRST.	Deaths from Pneumonia, 1881.		Tempera- ture,— Degrees Fahr.		Humidity of Atmosphere, Etc.—Monthly Averages.				Ozone,— Relative. Maximum = 10.		Average Velocity of Wind, Miles per Hour,—by Registering Anemometer.	Average Pressure of Atmosphere, (Barometer Reduced to 32° Fahr.)
	Number.	Per Cent. of Total.	Average Daily Range dur- ing Day and following Night, by Reg. Therm'r. Observed at 7 A. M.	Average of Daily Observa- tions at 7 A. M., 2 P. M., and 9 P. M.	Relative Humidity, or Per Cent. of Saturation.	Weight, in Grains, of Vapor in Cubic Foot of Air. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Inhaled by one per- son in 24 hours. <sup>a</sup>	Weight, in Troy Ounces, of Vapor Exhaled from Air passages in 24 hours, in excess of vapor inhaled. <sup>a</sup>	Day,—7 A. M. to 2 P. M.	Night,—9 P. M. to 7 A. M.		
Year, 1881.....	802	100.00	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	29.017
More than the Av. No. of Deaths.												
March.....	126	15.71	14.68	30.59	78	1.76	1.10	10.53	4.52	6.00	10.4	28.821
April.....	100	12.47	21.33	43.23	64	2.49	1.56	10.12	4.50	6.07	9.8	28.973
December.....	91	11.35	12.55	35.28	75	2.10	1.31	10.37	3.39	3.77	11.2	29.056
February.....	88	10.97	19.61	22.27	80	1.40	.88	10.80	3.75	5.54	11.0	29.071
January.....	77	9.60	18.65	16.98	81	1.08	.68	11.00	4.52	5.45	7.3	29.077
May.....	70	8.73	24.10	66.04	61	4.84	3.03	8.65	3.94	4.26	8.4	29.033
Average.....	67	8.33	19.84	49.59	70	3.54	2.21	9.47	4.00	4.66	9.6	29.017
Less than the Av. No. of Deaths.												
October.....	55	6.86	19.84	53.63	75	3.94	2.46	9.22	2.77	3.52	8.7	29.089
September.....	47	5.86	22.53	71.33	63	5.59	3.49	8.19	4.12	3.57	10.3	28.999
November.....	43	5.36	15.57	38.75	74	2.37	1.48	10.20	3.57	5.30	14.6	29.037
July.....	39	4.86	23.32	75.41	62	6.08	3.80	7.88	4.45	4.10	8.1	29.035
June.....	37	4.61	21.43	65.99	67	5.07	3.17	8.51	3.73	4.80	8.4	28.940
August.....	29	3.62	24.48	74.63	62	5.80	3.63	8.05	4.45	3.53	7.0	29.063

<sup>a</sup> See foot-notes to Exhibit K, page 256.

<sup>b</sup> Excluding 3 in unknown month.

<sup>c</sup> Exceptions to the proposition that the Average Daily Temperature was *lower* than the average in months when *more* than the average number of deaths from Pneumonia occurred, and *vice versa*.

<sup>d</sup> Exceptions to the proposition that *less* than an average amount of vapor was inhaled in months when *more* than the average number of deaths from Pneumonia occurred, and *vice versa*.

<sup>e</sup> Seven out of nine cases in which the Absolute Humidity was *greater* and the deaths *less* than the average, or *vice versa*.

<sup>f</sup> Three out of nine cases in which the Absolute Humidity was *greater* and the deaths *less* than the average, or *vice versa*.

<sup>g</sup> Two out of nine cases in which the Day Ozone and the deaths were both *greater* than the average, or both *less* than the average.

<sup>h</sup> Six out of nine cases in which the Day Ozone and the deaths were both *greater* than the average, or both *less* than the average.

<sup>i</sup> Four out of nine cases in which the Night Ozone and the deaths were both *greater* than the average, or both *less* than the average.

<sup>j</sup> Five out of nine cases in which the Night Ozone and the deaths were both *greater* than the average, or both *less* than the average.

<sup>k</sup> Four out of nine cases in which the Pressure of the Atmosphere and the deaths were both *greater* than the average, or both *less* than the average.

<sup>l</sup> Three out of nine cases in which the Pressure of the Atmosphere and the deaths were both *greater* than the average, or both *less* than the average.



**EXHIBIT 17.—PNEUMONIA.**—*By Months, the Number of Deaths Returned as having occurred from Pneumonia, in Michigan, during each of the Years 1872–1881, and the average for Ten Years ending with 1881.*

YEARS.	TOTALS.	DEATHS FROM PNEUMONIA, 1872-1881.												
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Unk.
1872.....	641	46	64	75	79	53	23	26	31	29	56	63	89	2
1873.....	706	84	110	80	58	65	55	29	29	34	37	65	68	1
1874.....	800	49	57	108	141	108	46	29	32	46	39	50	93	2
1875.....	745	85	116	128	88	73	36	21	17	31	42	41	65	2
1876.....	627	43	71	107	68	50	33	20	37	28	38	40	91	1
1877.....	465	58	56	61	60	39	24	14	23	26	26	35	38	2
1878.....	462	36	37	59	54	37	30	15	19	22	35	53	65	.....
1879.....	701	44	92	114	102	59	36	30	31	42	25	45	80	1
1880.....	812	56	82	111	113	79	37	29	36	51	44	63	105	1
1881.....	805	77	88	128	100	70	37	39	29	47	25	43	91	3
Average } for 10 yrs }	676	58	77	97	86	63	36	24	23	36	40	50	79	2

EXHIBIT 20—*Relative Amount of Ozone in Air from 9 P. M. to 7 A. M.,—Night Observations,—by Months, during the Years 1872–1881, and the Average for 10 years ending with 1881; also, the Average for 10 years ending with 1881, from 7 A. M. to 2 P. M.,—Day Observations, at the Agricultural College.*

YEARS.	Annual Aver- age.	OZONE OBSERVATIONS, BY MONTHS.												
		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
Day—	1872....	2.82	4.50	4.00	3.00	2.63	2.14	1.91	.88	.98	1.40	1.93	4.60	5.81
	1873....	4.02	5.06	4.21	4.09	3.76	4.58	3.26	3.59	3.55	2.30	4.52	4.30	4.97
	1874....	4.10	5.10	5.53	5.00	5.70	5.80	3.50	1.80	2.80	2.90	3.32	3.80	4.00
	1875....	4.53	5.52	5.78	5.70	3.73	3.19	3.96	3.52	3.50	4.30	5.30	4.90	5.00
	1876....	3.68	5.32	5.76	6.06	3.70	3.10	1.87	2.16	1.97	2.60	3.45	3.57	4.57
	1877....	3.66	4.87	4.54	5.29	3.70	3.29	3.17	2.71	3.42	2.93	3.20	3.60	3.17
	1878....	3.50	3.74	5.00	4.68	4.37	3.97	3.17	2.10	2.32	2.23	2.71	3.17	4.55
	1879....	3.24	4.00	4.54	3.93	3.00	2.79	2.43	2.90	2.58	2.87	3.32	3.53	2.97
	1880....	4.05	2.97	3.83	5.52	5.10	3.65	3.80	3.61	3.97	2.93	2.90	5.10	5.16
	1881....	4.00	4.52	3.75	4.52	4.50	3.94	3.73	4.45	4.45	4.12	2.77	3.87	3.39
Av. for 10 years.		3.76	4.56	4.69	4.78	4.02	3.65	3.08	2.77	2.95	2.86	3.34	4.04	4.36
Night—	1872....	4.24	5.44	6.00	5.71	5.30	3.84	3.23	2.28	.99	1.86	3.18	6.17	6.84
	1873....	4.63	6.32	5.93	5.80	4.27	4.59	2.66	3.06	2.65	4.27	4.69	5.47	5.89
	1874....	3.99	6.39	6.10	6.00	6.60	4.90	2.34	1.50	1.10	1.20	3.01	4.50	4.20
	1875....	5.04	5.93	6.57	6.19	3.96	4.03	3.66	3.22	3.70	3.68	6.20	6.60	6.70
	1876....	4.11	6.90	7.27	7.00	5.53	4.13	2.27	1.58	1.26	1.73	3.48	3.33	4.81
	1877....	3.33	5.03	4.14	6.06	4.27	2.94	2.90	1.77	1.03	1.53	3.19	3.73	3.37
	1878....	3.42	4.48	5.33	4.94	4.53	4.10	3.00	1.74	1.52	1.60	1.97	3.14	4.74
	1879....	3.36	4.48	5.01	4.30	4.00	2.68	2.03	2.13	1.76	2.53	2.81	4.63	3.87
	1880....	3.63	2.97	4.17	4.94	4.93	3.03	2.70	2.23	2.23	2.15	2.68	5.33	6.23
	1881....	4.66	5.45	5.54	6.00	6.07	4.23	4.80	4.10	3.53	3.57	3.52	5.30	3.77
Av. for 10 years.		4.04	5.34	5.61	5.69	4.95	3.85	2.96	2.36	1.98	2.41	3.47	4.82	5.04



## CORRELATION OF CONSUMPTION AND PNEUMONIA.

These two diseases may be studied together by sex, by months, and by periods of age in the two following tables. The facts in regard to these two diseases seem to show that they are most prevalent under opposite circumstances.

TABLE XXII.—CORRELATION OF CONSUMPTION AND PNEUMONIA.—Deaths Returned as having occurred from Consumption and Pneumonia, in Michigan, during the Year 1881, by Months, Exhibiting the Total Number, Number of each Sex, Per Cent. of Total, and Excess of each Sex.

MONTHS, 1881.	CONSUMPTION, 1881.										PNEUMONIA, 1881.				
	Number.					Per Cent. of each Sex to Total of both Sexes.					Number.				
	Males.	Fe-males.	Total.	Per Cent. of deaths in each Month to Total for Year.	Excess.	Males.	Fe-males.	Excess.	Per Cent. of each Sex to Total of both Sexes.	Total.	Males.	Fe-males.	Excess.	Per Cent. of deaths in each Month to Total for Year.	Per Cent. of each Sex to Total of both Sexes.
.....	905	1,049	1,954	100.00	46.32	53.68	7.36	467	337	b 805	467	337	130	100.00	58.06
.....	46	c 69	c 115	5.89	40.00	60.00	20.00	33	c 44	c 77	33	c 44	11	9.57	42.86
.....	76	c 63	c 139	7.12	51.68	45.32	9.36	47	c 40	b c 88	47	c 40	7	10.93	54.02
.....	82	c 82	164	8.39	50.00	50.00	.....	74	c 52	c 126	74	c 52	22	15.85	58.73
.....	104	102	206	10.54	50.49	49.51	.98	64	c 36	100	64	c 36	28	12.42	64.00
.....	75	c 104	180	9.21	42.22	57.78	15.56	48	c 22	70	48	c 22	22	8.70	68.57
.....	68	c 80	146	7.47	45.21	54.79	9.58	19	c 13	37	19	c 13	18	4.60	51.35
.....	68	c 91	c 159	8.14	42.77	57.23	14.46	23	c 13	c 39	23	c 13	16	4.85	66.67
.....	74	84	c 158	8.09	46.84	53.16	6.32	16	c 13	c 29	16	c 13	13	3.60	55.17
.....	62	c 93	c 155	7.93	40.00	60.00	20.00	24	c 23	c 47	24	c 23	23	5.84	51.06
.....	71	c 93	c 164	8.39	43.29	56.71	13.42	28	c 27	c 55	28	c 27	27	6.83	50.91
.....	c 82	c 81	c 163	8.34	50.31	49.69	.62	c 29	c 14	c 43	c 29	c 14	15	5.34	67.44
.....	95	103	198	10.13	47.98	52.02	4.04	57	34	91	57	34	23	11.30	62.64
.....	3	4	7	.35	42.86	57.14	14.28	2	1	3	2	1	1	.37	66.67
.....	75	87	154	8.33	46.10	53.90	.....	39	29	67	39	29	38	8.33	53.90

ing deaths is unknown month.

a unknown sex.

c the average number of deaths from Consumption, and more than the average number from Pneumonia, and vice versa.

III.—CORRELATION OF CONSUMPTION AND PNEUMONIA.—Exhibiting the Number and Per Cent. of Deaths the difference between the Sexes, and the Per Cent. of Total Deaths at each Period of Age from Consumption, Returned as having occurred in Michigan, during the Year 1881.

MODES OF AGE, 1881.	CONSUMPTION, 1881.										PNEUMONIA, 1881.									
	NUMBER.					PER CENT. OF THE SEXES.					NUMBER.					PER CENT. OF THE SEXES.				
	Males.		Fe-males.		Total.	Per Ct. of Deaths at each Age to All Ages.	Males.		Fe-males.		Males.	Fe-males.	Total.	Per Ct. of Deaths at each Age to All Ages.	Males.	Fe-males.	Excess.		Males.	Fe-males.
All Ages, 1881.....	905	1,049			1,954	100.00	45.32	53.68			467	337	e 805	100.00	55.08	41.92			16.16	
Under 5.....	64	a 56			120	6.14	53.33	46.67			189	a 143	e 333	41.37	56.93	43.07			13.86	
5 to 10.....	17	a 10			27	1.38	62.96	37.04			18	a 22	a 40	4.07	45.00	55.00			b 10.00	
10 to 15.....	13	22			35	1.79	37.14	62.86			3	15	18	2.24	16.67	83.33				66.66
15 to 20.....	a 61	a 134			a 195	9.98	31.28	68.72			a 14	a 13	a 27	3.35	51.85	48.15				
20 to 25.....	a 118	a 173			a 291	14.59	40.55	59.45			a 25	a 10	a 35	4.35	71.43	28.57				
25 to 30.....	a 118	a 133			a 251	12.85	47.01	52.99			a 21	a 6	a 27	3.35	77.78	22.22				
30 to 35.....	a 75	a 96			a 171	8.75	43.86	56.14			a 14	a 7	a 21	2.61	68.67	31.33				
35 to 40.....	a 74	a 77			a 151	7.73	49.01	50.99			a 11	a 16	a 27	3.35	40.74	59.26			b 18.52	
40 to 45.....	a 61	a 67			a 128	6.55	47.66	52.34			a 18	a 9	a 27	3.35	66.67	33.33				
45 to 50.....	44	a 64			108	5.53	40.74	59.26			a 19	a 9	a 28	3.48	67.86	32.14				
50 to 55.....	43	38			86	4.40	53.81	44.19			22	13	35	4.35	62.86	37.14				
55 to 60.....	37	43			80	4.09	46.25	53.75			21	11	32	3.98	65.62	34.38				
60 to 65.....	49	32			81	4.15	60.50	39.50			16	9	25	3.11	64.00	36.00				
65 to 70.....	41	32			73	3.74	56.16	43.84			26	13	39	4.84	66.67	33.33				
70 to 75.....	33	24			62	3.17	61.29	38.71			21	18	39	4.84	53.85	46.15				
75 to 80.....	21	23			44	2.25	47.73	52.27			20	7	27	3.35	74.07	25.93				
80 and over.....	10	8			18	.92	55.56	44.44			2	10	12	1.40	16.67	83.33			b 66.66	
Unknown.....	16	17			33	1.69	48.48	51.52			7	6	13	1.62	53.85	46.15				
Average..... <sup>d</sup>	32	61			113	5.78	46.02	53.98			27	20	47	5.79	57.45	42.55				

<sup>a</sup> More than an average number and per cent. of deaths from Consumption and less than an average number and per cent. of deaths from Pneumonia, and vice versa. <sup>b</sup> More than the average proportion of males from Consumption, and less than the average proportion of males from Pneumonia, and vice versa. <sup>c</sup> Includes 1 unknown sex. <sup>d</sup> Of 17 periods of 5 years each, unknown ages excluded.



TABLE XXIV.—*Exhibiting, for the State and Eleven Geographical Divisions in 1881, by Sex, the Number of Deaths Returned as having occurred from All Causes, from Consumption, Pneumonia, Typhoid Fever, Intermittent Fever, and Diarrhea; also, the Per Cent. of Deaths from Consumption, Pneumonia, Typhoid Fever, Intermittent Fever, and Diarrhea, to Deaths from All Causes.*

STATE AND GEOGRAPHICAL DIVISIONS. <sup>a</sup>	SEX.	All Causes, 1881.	CONSUMPTION.		PNEUMONIA.		TYPHOID FEVER.		INTERMIT- TENT FEVER.		DIARRHEA.	
			Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.
STATE..... <sup>b</sup>	Total....	19,238	1,954	10.16	805	4.18	834	4.60	44	.23	501	2.60
	Males....	10,263	905	8.82	467	4.55	491	4.78	19	.19	288	2.81
	Females..	8,910	1,049	11.77	337	3.78	393	4.41	25	.28	213	2.39
	Unk'n....	65	-----	-----	1	1.54	-----	-----	-----	-----	-----	-----
Upper-peninsular....	Total....	1,084	56	5.17	36	3.32	71	6.55	6	.55	63	5.81
	Males....	622	29	4.66	22	3.54	53	8.52	3	.48	31	4.98
	Females..	441	27	6.12	14	3.17	18	4.08	3	.68	32	7.26
	Unk'n....	21	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Northwestern.....	Total....	517	36	6.96	15	2.90	22	4.26	-----	-----	14	2.71
	Males....	276	14	5.07	11	3.99	5	1.81	-----	-----	10	3.62
	Females..	239	22	9.21	4	1.67	17	7.11	-----	-----	4	1.67
	Unk'n....	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Northern.....	Total....	394	33	8.38	23	5.84	13	3.30	-----	-----	13	3.30
	Males....	204	13	6.37	15	7.35	5	2.45	-----	-----	6	2.94
	Females..	190	20	10.53	8	4.21	8	4.21	-----	-----	7	3.68
Northeastern.....	Total....	379	25	6.60	10	2.64	14	3.69	1	.26	13	3.43
	Males....	214	17	7.94	7	3.27	8	3.74	1	.47	10	4.67
	Females..	165	8	4.85	3	1.82	6	3.64	-----	-----	3	1.82
Western.....	Total....	2,594	223	8.60	109	4.20	109	4.20	6	.23	89	3.43
	Males....	1,379	101	7.32	67	4.86	62	4.50	4	.29	56	4.06
	Females..	1,207	122	10.11	42	3.48	47	3.89	2	.17	33	2.73
	Unk'n....	8	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Northern-central....	Total....	644	50	7.76	31	4.81	38	5.90	7	1.09	-----	-----
	Males....	346	30	8.67	17	4.91	23	6.65	3	.87	-----	-----
	Females..	296	20	6.76	14	4.73	15	5.06	4	1.35	-----	-----
	Unk'n....	2	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

<sup>a</sup> For counties included in each Division, see page 162.

<sup>b</sup> For counties and townships from which no returns of deaths for 1881 were received, see Exhibit H, page 136; for those in which no deaths occurred, see Exhibit I, page 138.

TABLE XXIV.—CONTINUED.

GEOGRAPHICAL DIVISIONS. <sup>a</sup>	SEX.	All Causes, 1881.	CONSUMP- TION.		PNEUMONIA.		TYPHOID FEVER.		INTERMIT- TENT FEVER.		DIARRHEA.	
			Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.
Bay and Eastern.....	Total....	3,152	274	8.69	172	5.46	136	4.31	5	.16	81	2.57
	Males....	1,693	132	7.80	105	6.20	78	4.61	—	—	42	2.48
	Females.	1,451	142	9.79	67	4.62	58	4.00	5	.34	39	2.69
	Unk'n....	8	—	—	—	—	—	—	—	—	—	—
Central.....	Total....	3,050	325	10.66	116	3.80	150	4.92	3	.10	32	1.05
	Males....	1,526	139	9.11	56	3.67	70	4.59	1	.07	20	1.31
	Females.	1,516	186	12.27	60	3.96	80	5.28	2	.13	12	.79
	Unk'n....	8	—	—	—	—	—	—	—	—	—	—
Southwestern.....	Total....	1,205	149	12.37	61	5.06	65	5.39	3	.25	13	1.08
	Males....	608	66	10.86	37	6.09	27	4.44	2	.33	6	.99
	Females.	595	83	13.95	24	4.03	38	6.39	1	.17	7	1.15
	Unk'n....	2	—	—	—	—	—	—	—	—	—	—
Southern-central....	Total....	2,949	366	12.41	113	3.83	128	4.34	2	.07	29	.98
	Males....	1,593	148	9.29	60	3.77	83	5.21	2	.13	18	1.13
	Females.	1,348	218	16.17	53	3.93	45	3.34	—	—	11	.82
	Unk'n....	8	—	—	—	—	—	—	—	—	—	—
Southeastern.....	Total....	3,270	417	12.75	119	3.64	138	4.22	11	.34	154	4.71
	Males....	1,802	216	11.99	70	3.88	77	4.27	3	.17	89	4.94
	Females.	1,462	201	13.75	48	3.28	61	4.17	8	.55	65	4.45
	Unk'n....	6	—	—	1	16.67	—	—	—	—	—	—

<sup>a</sup> For counties included in each Division, see page 162.

TABLE XXV.—*Exhibiting, for the State, and by Counties, for the Year 1881, the Number of Deaths Returned as having occurred from All Causes, from Consumption, Pneumonia, Typhoid Fever, Intermittent Fever, and Diarrhea; also the Per Cent. of Deaths from Consumption, Pneumonia, Typhoid Fever, Intermittent Fever, and Diarrhea, to Deaths from All Causes.*

STATE AND COUNTIES.	All Causes, 1881.	CONSUMPTION.		PNEUMONIA.		TYPHOID FEVER.		INT'NT FEVER.		DIARRHEA.	
		Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Num- ber of Dea's.	Per Cent. to Deaths from All Causes.
State.....	19,238	1,954	10.16	805	4.18	884	4.60	44	.23	501	2.60
Alcona.....	12	2	16.67	-----	-----	1	8.33	-----	-----	-----	-----
Allegan.....	412	50	12.14	17	4.13	22	5.34	1	.24	7	1.70
Alpena.....	114	18	11.40	4	3.51	4	3.51	-----	-----	10	8.77
Antrim.....	75	3	4.00	4	5.33	3	4.00	-----	-----	-----	-----
Baraga.....	18	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Barry.....	290	30	1.03	12	4.14	11	3.79	1	.34	7	2.41
Bay.....	541	51	9.43	23	4.25	15	2.77	1	.18	20	3.70
Benzie.....	65	3	4.62	-----	-----	1	1.54	-----	-----	1	1.54
Berrien.....	307	35	11.40	20	6.51	12	3.88	1	.32	5	1.63
Branch.....	255	38	14.90	15	5.88	18	7.06	-----	-----	1	.39
Calhoun.....	428	60	14.08	8	1.88	21	4.93	-----	-----	1	.23
Cass.....	178	24	13.64	10	5.68	10	5.63	-----	-----	-----	-----
Charlevoix.....	54	5	9.26	8	14.81	1	1.85	-----	-----	1	1.85
Cheboygan.....	109	9	8.26	7	6.42	4	3.67	-----	-----	11	10.09
Chippewa.....	10	3	30.00	-----	-----	-----	-----	-----	-----	1	10.00
Clare.....	66	4	6.06	4	6.06	6	9.09	-----	-----	-----	-----
Ollinton.....	276	27	9.78	11	3.98	11	3.99	-----	-----	2	.36
Crawford.....	16	2	12.50	-----	-----	2	12.50	-----	-----	-----	-----
Delta.....	83	3	3.61	3	3.61	1	1.20	2	2.41	-----	-----
Eaton.....	356	39	10.96	16	4.49	9	2.53	-----	-----	3	.28
Emmet.....	79	9	11.39	2	2.53	2	2.53	-----	-----	-----	-----
Genesee.....	409	54	13.20	13	3.18	14	3.42	-----	-----	6	1.47
Gladwin.....	10	1	10.00	1	10.00	-----	-----	-----	-----	-----	-----
G. Traverse.....	70	9	12.86	1	1.43	6	8.57	-----	-----	1	1.43
Gratiot.....	212	17	8.02	9	4.25	9	4.25	2	.94	2	.94
Hillsdale.....	372	46	12.37	13	3.49	27	7.26	-----	-----	4	1.08
Houghton.....	243	15	6.17	5	2.06	19	7.82	1	.41	26	10.70
Huron.....	242	9	3.72	15	6.20	1	.41	-----	-----	10	4.13
Ingham.....	293	37	12.42	10	3.36	27	9.06	-----	-----	3	1.01
Ionia.....	300	32	10.67	9	3.00	24	8.00	-----	-----	-----	-----
Iosco.....	174	5	28.74	4	2.30	7	4.02	-----	-----	2	1.15
Isabella.....	178	17	9.60	10	5.68	8	4.55	1	.57	-----	-----
Isle Royal.....	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Jackson.....	407	41	10.07	8	1.97	12	2.95	-----	-----	6	1.47
Kalamazoo.....	437	46	10.53	24	5.49	13	2.97	-----	-----	6	1.37
Kalkaska.....	38	4	10.53	2	5.26	-----	-----	-----	-----	-----	-----
Kent.....	1,022	105	10.27	34	3.33	37	3.62	2	.20	41	4.01
Keweenaw.....	122	5	4.10	10	8.20	2	1.64	-----	-----	4	3.28
Lake.....	48	4	8.33	3	6.25	2	4.17	-----	-----	-----	-----
Lapeer.....	306	22	7.19	18	5.88	17	5.56	1	.32	11	3.59
Leelanaw.....	96	6	6.25	1	1.04	-----	-----	-----	-----	-----	-----
Lenawee.....	415	53	12.77	12	2.89	10	2.41	-----	-----	5	1.20

\* No returns from county clerk to State Department.



TABLE XXV.—CONTINUED.

COUNTIES.	All Causes, 1881.	CONSUMPTION.		PNEUMONIA.		TYPHOID FEVER.		INT'M'T FEVER.		DIARRHEA.	
		Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.	Number of Deaths.	Per Cent. to Deaths from All Causes.
Livingston..	229	25	9.65	7	2.70	9	3.47	-----	-----	6	2.31
Mackinac....	19	2	10.53	2	10.53	1	5.26	-----	-----	1	5.26
Macomb.....	305	30	9.84	9	2.95	23	9.18	1	.33	21	6.89
Manistee....	181	13	7.18	10	5.52	5	2.76	-----	-----	9	4.97
Manitou.....	5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Marquette..	406	14	3.45	11	2.71	35	8.62	1	.25	27	6.65
Mason.....	184	12	6.52	5	2.72	2	1.09	-----	-----	3	1.63
Mecosta.....	297	21	7.07	15	5.05	20	6.73	-----	-----	-----	-----
Menominee..	150	13	8.67	4	2.67	8	5.33	-----	-----	4	2.67
Midland.....	83	7	8.43	1	1.20	3	3.61	6	7.23	-----	-----
Missaukee..	27	1	3.70	-----	-----	3	1.11	-----	-----	1	3.70
Monroe.....	346	39	11.27	18	5.20	24	6.94	1	.29	11	3.18
Montcalm...	396	36	9.09	18	4.55	19	4.80	-----	-----	2	.51
Montmorency	5	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
Muskegon...	462	29	6.28	29	6.28	33	7.14	2	.22	20	4.33
Newaygo....	165	15	9.09	11	6.67	7	4.24	-----	-----	5	3.03
Oakland.....	390	55	14.10	25	6.41	18	4.62	1	.26	3	.77
Oceana.....	166	6	3.61	2	1.20	3	1.81	2	1.20	-----	-----
Ogemaw.....	25	2	8.00	1	4.00	1	4.00	1	4.00	1	4.00
Ontonagon..	19	-----	-----	1	5.26	5	2.63	-----	-----	-----	-----
Osceola.....	137	9	7.09	5	3.94	2	1.57	-----	-----	1	.79
Oscoda.....	11	1	9.09	-----	-----	1	9.09	-----	-----	-----	-----
Otsego.....	23	1	4.35	-----	-----	1	4.35	-----	-----	1	4.35
Ottawa.....	420	43	10.24	20	4.76	23	5.48	-----	-----	19	4.52
Presque Isle.	38	2	5.26	1	2.63	-----	-----	-----	-----	-----	-----
Roscommon..	19	-----	-----	-----	-----	1	5.33	-----	-----	-----	-----
Saginaw.....	957	106	11.08	49	5.12	43	4.49	1	.10	21	2.19
Sanilac.....	298	23	7.72	11	3.69	19	6.38	1	.34	4	1.34
Schoolcraft.	14	1	7.14	-----	-----	-----	-----	2	14.29	-----	-----
Shiawassee..	254	28	11.03	11	4.33	17	6.69	-----	-----	1	.39
St. Clair....	464	29	6.25	40	8.62	29	6.25	1	.22	12	2.60
St. Joseph..	232	32	13.79	9	3.98	12	5.17	2	.86	2	.86
Tuscola.....	344	34	9.88	16	4.65	12	3.49	-----	-----	3	.87
Van Buren..	310	40	12.90	14	4.52	15	4.84	1	.32	1	.32
Washtenaw..	405	50	12.35	24	5.93	15	3.70	-----	-----	4	.99
Wayne.....	2,229	293	13.14	67	3.01	68	3.05	8	.36	119	5.34
Wexford.....	73	4	5.48	3	4.11	7	9.59	-----	-----	2	2.74

**TABLE XXVI.**—*Exhibiting, for the State and Eleven Geographical Divisions of Michigan, by Sex, the Number of Deaths Returned as having occurred at All Ages, from Old Age, of All Aged 70 and Over, and of All Aged Under 5; also the Per Cent. of Deaths from Old Age, of All Aged 70 and Over, and of All Aged Under 5, to Deaths at All Ages, during the Year 1881.*

STATE AND GEOGRAPHICAL DIVISIONS. <sup>a</sup>	SEX.	Deaths at All Ages, 1881.	OLD AGE.		AGED 70 AND OVER.		AGED UNDER 5.	
			Number of Deaths.	Per Cent. to Deaths at All Ages, by Geographical Divisions.	Number of Deaths.	Per Cent. to Deaths at All Ages, by Geographical Divisions.	Number of Deaths.	Per Cent. to Deaths at All Ages, by Geographical Divisions.
STATE..... <sup>b</sup>	Total .....	19,238	725	3.77	2,233	11.61	7,816	40.63
	Males .....	10,263	360	3.51	1,287	12.54	4,296	41.86
	Females .....	8,910	365	4.10	940	10.55	3,461	38.84
	Unknown .....	65			6	9.23	59	90.77
Upper-peninsular.....	Total .....	1,084	16	1.48	63	5.81	649	59.87
	Males .....	622	9	1.45	35	5.63	354	56.91
	Females .....	441	7	1.59	23	5.22	279	63.27
	Unknown .....	21			5	23.81	16	76.19
Northwestern.....	Total .....	517	6	1.16	41	7.93	240	46.42
	Males .....	276	2	.72	26	9.42	132	47.83
	Females .....	239	4	1.67	15	6.28	106	44.35
	Unknown .....	2					2	100.00
Northern .....	Total .....	394	10	2.54	32	8.12	195	49.49
	Males .....	204	5	2.45	20	9.80	105	51.47
	Females .....	190	5	2.63	12	6.32	90	47.37
Northeastern.....	Total .....	379	4	1.06	25	6.60	208	54.88
	Males .....	214	1	.47	16	7.48	115	53.74
	Females .....	165	3	1.82	9	5.45	93	56.36
Western .....	Total .....	2,594	65	2.51	187	7.21	1,227	47.30
	Males .....	1,379	25	1.81	99	7.18	682	49.46
	Females .....	1,207	40	3.31	88	7.29	537	44.49
	Unknown .....	8					8	100.00

<sup>a</sup> For counties included in each Division, see page 162.

<sup>b</sup> For counties and townships from which no returns of deaths in 1881 were received, see Exhibit II, page 136; for those in which no deaths occurred, see Exhibit I, page 138.

TABLE XXVI.—CONTINUED.

GEOGRAPHICAL DIVISIONS.*	SEX.	Deaths at All Ages, 1881.	OLD AGE.		AGED 70 AND OVER.		AGED UNDER 5.	
			Number of Deaths.	Per Cent. to Deaths at All Ages, by Geographical Divisions.	Number of Deaths.	Per Cent. to Deaths at All Ages, by Geographical Divisions.	Number of Deaths.	Per Cent. to Deaths at All Ages, by Geographical Divisions.
Northern-central	Total.....	644	13	2.02	49	7.61	253	39.29
	Males.....	346	5	1.45	29	8.38	144	41.62
	Females.....	296	8	2.70	20	6.76	107	36.15
	Unknown.....	2					2	100.00
Bay and Eastern	Total.....	3,152	102	3.24	244	7.74	1,352	42.89
	Males.....	1,693	54	3.19	142	8.39	745	44.00
	Females.....	1,451	48	3.31	102	7.03	599	41.28
	Unknown.....	8					8	100.00
Central	Total.....	3,050	108	3.54	393	12.89	1,096	35.93
	Males.....	1,526	44	2.88	215	14.09	574	37.81
	Females.....	1,516	64	4.22	178	11.74	514	33.91
	Unknown.....	8					8	100.00
Southwestern	Total.....	1,205	68	5.64	193	16.02	424	35.19
	Males.....	608	41	6.74	110	18.09	221	36.35
	Females.....	595	27	4.54	83	13.95	201	33.78
	Unknown.....	2					2	100.00
Southern-central	Total.....	2,949	197	6.68	598	20.28	832	28.21
	Males.....	1,593	104	6.53	364	22.55	470	29.50
	Females.....	1,348	93	6.90	234	17.36	354	26.26
	Unknown.....	8					8	100.00
Southeastern	Total.....	3,270	136	4.16	408	12.48	1,340	40.98
	Males.....	1,802	70	3.88	231	12.82	754	41.84
	Females.....	1,462	66	4.51	176	12.04	581	39.74
	Unknown.....	6			1	16.67	5	83.33

\* For counties included in each Division, see page 162.

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TABLE XXVII.—*Exhibiting, for the State and Counties of Michigan, the Number of Deaths Returned as having occurred at All Ages, from Old Age, of All Aged 70 and Over, and of All Aged Under 5; also the Per Cent. of Deaths from Old Age, of All Aged 70 and Over, and of All Aged under 5, to Deaths at All Ages, for the Year 1881.*

STATE AND COUNTIES.	ALL AGES.	OLD AGE.		AGED 70 AND OVER.		AGED UNDER 5.	
	Number of Deaths.	Number of Deaths.	Per Ct. to Deaths at All Ages.	Number of Deaths.	Per Ct. to Deaths at All Ages.	Number of Deaths.	Per Ct. to Deaths at All Ages.
STATE .....	19,238	725	3.77	2,233	11.61	7,816	40.63
Alcona.....	12			1	8.33	6	50.00
Allegan.....	412	30	7.28	59	14.32	153	37.14
Alpena.....	114	1	.88	10	8.77	71	62.28
Antrim.....	75	1	1.33	6	8.00	29	38.67
Baraga.....	18					8	44.44
Barry.....	290	9	3.10	35	12.07	108	37.24
Bay.....	541	4	.74	10	1.85	275	50.83
Benzie.....	65			11	16.92	22	33.85
Berrien.....	307	16	5.21	59	19.22	97	31.60
Branch.....	255	15	5.88	66	25.88	61	23.92
Calhoun.....	426	29	6.81	92	21.60	118	27.70
Cass.....	176	10	5.68	32	18.18	61	34.66
Charlevoix.....	54	3	5.56	7	12.96	26	48.15
Cheboygan.....	109			6	5.50	60	55.05
Chippewa.....	10	1	10.00	1	10.00	5	50.00
Clare.....	66	2	3.03	9	13.64	19	28.79
Clinton.....	276	9	3.26	40	14.49	96	34.78
Crawford.....	16					7	43.75
Delta.....	83			5	6.02	40	48.19
Eaton.....	356	10	2.81	47	13.20	138	38.76
Emmet.....	79	4	5.06	9	11.39	43	54.43
Genesee.....	409	17	4.16	69	16.87	130	31.78
Gladwin.....	10			1	10.00	1	10.00
Grand Traverse.....	70	1	1.43	8	11.43	27	38.57
Gratiot.....	212	7	3.30	22	10.38	96	45.28
Hillsdale.....	372	32	8.60	85	22.85	76	20.16
Houghton.....	243	5	2.06	8	3.29	179	73.66
Huron.....	242	8	3.31	27	11.16	103	42.56
Ingham.....	298	13	4.36	33	11.07	89	29.87
Ionia.....	300	12	4.00	34	11.33	101	33.67
Iosco.....	174	2	1.15	6	3.45	92	52.87
Isabella.....	176	7	3.98	15	8.52	81	46.02
Isle Royal.....*							
Jackson.....	407	20	4.91	60	14.74	159	39.07
Kalamazoo.....	437	22	5.03	64	14.65	132	30.21
Kalkaska.....	38			1	2.63	16	42.11
Kent.....	1,022			71	6.95	478	46.77
Keweenaw.....	10 <sup>a</sup>			14	14.00	68	68.00
Lake.....						21	43.75
Lapeer.....						128	41.88

\* No returns from county

TABLE XXVII.—CONTINUED.

COUNTIES.	ALL AGES.	OLD AGE.		AGED 70 AND OVER.		AGED UNDER 5.	
	Number of Deaths.	Number of Deaths.	Per Ct. to Deaths at All Ages.	Number of Deaths.	Per Ct. to Deaths at All Ages.	Number of Deaths.	Per Ct. to Deaths at All Ages.
Lawrence	96	2	2.08	8	8.33	29	30.21
Lee	415	31	7.47	100	24.10	114	27.47
Stonewall	259	10	3.86	48	18.53	83	32.05
Madison	19					6	31.58
Abbeville	305	14	4.59	50	16.39	112	36.72
Lee	181	2	1.10	7	3.87	109	60.22
South	5	1	20.00	2	40.00	2	40.00
Nettle	406	6	1.48	10	2.46	245	60.34
Richmond	184	5	2.72	14	7.61	88	47.83
Staunton	297	2	.67	9	3.03	112	37.71
Winchester	150	2	1.33	19	12.67	85	56.67
Wood	83	2	2.41	15	18.07	32	38.55
Wilkes	27			2	7.41	13	48.15
Wetzel	346	14	4.05	52	15.03	138	39.88
Alm.	396	12	3.03	24	6.06	169	42.68
Monrovia	5					3	60.00
Wagon	462	4	.87	19	4.11	252	54.55
Wagon	165	2	1.21	6	3.64	61	37.01
Adams	390	20	5.13	82	21.03	88	22.56
Adams	166	6	3.61	11	6.63	82	49.40
Wetzel	25			4	16.00	14	56.00
Wagon	19			3	15.79	7	36.84
Laurens	127	2	1.57	10	7.87	64	50.39
Adams	11					5	45.45
Adams	23	2	8.70	3	13.04	14	60.87
Adams	420	19	4.52	50	11.90	181	43.10
Quebec Isle	38	1	2.63	4	10.53	17	44.74
Common	12					8	66.67
Wetzel	957	30	3.13	60	6.27	404	42.22
Wetzel	298	7	2.35	17	5.70	117	39.26
Wetzel	14	1	7.14	3	21.43	6	42.86
Wetzel	254	9	3.54	41	16.14	96	33.86
Wetzel	464	30	6.47	63	13.58	175	37.72
Wetzel	232	9	3.88	28	12.08	73	31.47
Wetzel	344	13	3.78	28	8.14	150	43.60
Wetzel	310	12	3.87	43	13.87	113	36.45
Wetzel	405	39	9.63	93	22.96	100	24.69
Wetzel	2,229	88	3.95	224	10.05	1,002	44.95
Wetzel	73			3	4.11	38	52.05





3	2	3	1	1	1	1	2	1	1	15 Unknown.
6	14	18	21	16	11	16	9	13	2	100 Total.
2	4	7	7	8	6	5	2	4	6	63 Married.
2	8	6	11	8	3	10	5	6	4	69 Single.
1	1	2	3	2	2	2	2	4	2	20 Widowed.
1	1	1	2	1	1	1	1	1	1	8 Unknown.
7	12	6	10	3	9	3	10	4	8	95 Total.
3	3	1	5	2	4	2	2	4	4	23 Married.
3	4	3	4	1	4	1	4	3	6	49 Single.
2	4	1	1	1	1	3	1	1	2	16 Widowed.
2	1	1	1	1	1	1	2	1	1	7 Unknown.
102	113	140	175	161	126	140	139	138	144	1,689 Total.
60	53	78	96	92	71	79	71	80	70	915 Married.
33	55	51	68	58	45	56	57	51	65	656 Single.
9	4	11	11	11	8	11	3	9	12	112 Widowed.
1	1	2	2	2	2	3	4	3	1	16 Unknown.
63	49	64	81	88	69	75	75	80	81	889 Total.
39	25	33	49	48	44	44	40	51	39	504 Married.
19	22	22	22	32	22	21	28	26	37	393 Single.
5	2	9	9	8	3	8	7	5	8	76 Widowed.
39	64	76	94	73	57	65	64	58	63	810 Total.
21	28	45	47	44	27	35	31	29	31	411 Married.
14	33	29	44	26	23	29	29	25	28	353 Single.
4	2	2	2	3	5	4	3	4	3	36 Widowed.
1	1	1	1	1	2	1	1	1	1	10 Unknown.











Married	Single	Total	Profession	Age	Sex	Color	Religion	Married	Single	Total	Profession	Age	Sex	Color	Religion
3	1	4	Cabinet-makers.	25-34	M	W	C	1	1	2	Cabinet-makers.	25-34	M	W	C
1	1	2		35-44	M	W	C	1	1	2		35-44	M	W	C
1	1	2	Carvers.	45-54	M	W	C	1	1	2	Carvers.	45-54	M	W	C
2	1	3	Confectioners.	55-64	M	W	C	2	1	3	Confectioners.	55-64	M	W	C
1	1	2	Cooks.	65-74	M	W	C	1	1	2	Cooks.	65-74	M	W	C
2	1	3	Coopers.	75-84	M	W	C	2	1	3	Coopers.	75-84	M	W	C
1	1	2	Engineers.	85-94	M	W	C	1	1	2	Engineers.	85-94	M	W	C
1	1	2	Feather Renovators.	95-104	M	W	C	1	1	2	Feather Renovators.	95-104	M	W	C
1	1	2	Lumber Sawyers.	105-114	M	W	C	1	1	2	Lumber Sawyers.	105-114	M	W	C
6	1	7		115-124	M	W	C	6	1	7		115-124	M	W	C
2	1	3	Machinists.	125-134	M	W	C	2	1	3	Machinists.	125-134	M	W	C
3	1	4		135-144	M	W	C	3	1	4		135-144	M	W	C
1	1	2	Unknown.	145-154	M	W	C	1	1	2	Unknown.	145-154	M	W	C
4	1	5		155-164	M	W	C	4	1	5		155-164	M	W	C
2	1	3	Mechanics.	165-174	M	W	C	2	1	3	Mechanics.	165-174	M	W	C
2	1	3		175-184	M	W	C	2	1	3		175-184	M	W	C
3	1	4	Millers.	185-194	M	W	C	3	1	4	Millers.	185-194	M	W	C
2	1	3		195-204	M	W	C	2	1	3		195-204	M	W	C
1	1	2		205-214	M	W	C	1	1	2		205-214	M	W	C
4	1	5	Molders.	215-224	M	W	C	4	1	5	Molders.	215-224	M	W	C
2	1	3		225-234	M	W	C	2	1	3		225-234	M	W	C
2	1	3		235-244	M	W	C	2	1	3		235-244	M	W	C
1	1	2	Plasterers.	245-254	M	W	C	1	1	2	Plasterers.	245-254	M	W	C
1	1	2	Polishers.	255-264	M	W	C	1	1	2	Polishers.	255-264	M	W	C
1	1	2	Sawyers.	265-274	M	W	C	1	1	2	Sawyers.	265-274	M	W	C



1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
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### CAUSES OF DEATH,—CONSUMPTION.

[illegible]





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### CAUSES OF DEATH,—CONSUMPTION.

301

		House-holders.										Housekeepers.										Housewives.										House-workers.										Laborers' Wives.										Laborers.										Laundresses.										Matrons.										Merchants' Daughters.										Merchants.									
		Single					Total					Single					Total					Single					Total					Single					Total					Single					Total					Single					Total					Single					Total																																		
Age	Sex	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
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EXHIBIT Q.—*The Average Age of the Inhabitants of Michigan, of both Sexes, of each Sex, and the difference between the Sexes, for All Returned as having Died from Consumption during the Years 1871 to 1881, inclusive, for all returned as having died from All Causes during the years 1871 to 1881, inclusive; as shown by the Registration Returns; for All Aged 20 and Over whose Ages and Occupations were stated in the Registration Returns of Deaths for the Years 1871 to 1881, inclusive, and for the Native and Foreign-born Inhabitants Returned as having Died during the Years 1871 to 1881, inclusive.*

	YEAR ENDING:	AVERAGE AGE IN YEARS AND HUNDRETHS OF A YEAR.			
		Total.	Males.	Females.	Excess, Males.
Deaths, as shown by Registration Returns.....	Dec. 31, 1871.	25.03	26.78	24.50	2.28
All aged 20 and over whose occupations were stated in Registration Returns of Deaths.....		51.44	52.79	46.45	6.34
Deaths, as shown by Registration Returns.....	Dec. 31, 1872.	24.17	25.09	23.17	1.92
Deaths from Consumption, by Registration Returns.....		33.05	32.10	31.19	7.91
All aged 20 and over whose occupations were stated in Registration Returns of Deaths.....		50.73	51.90	47.08	4.82
All who died aged 20 years and over, as shown by Registration Returns.....		49.72	51.67	47.42	4.25
Deaths, as shown by Registration Returns.....	Dec. 31, 1873.	31.20	31.95	30.14	1.81
Deaths of Native-born Inhabitants, as shown by Registration Returns.....		27.25	27.76	26.71	1.05
Deaths of Foreign-born Inhabitants, as shown by Registration Returns.....		45.87	46.68	42.35	-1.67
Deaths from Consumption, by Registration Returns.....		37.81	40.20	33.77	4.43
All aged 20 and over whose occupations were stated in Registration Returns of Deaths.....		50.17	56.51	42.27	8.24
All who died aged 20 years and over, as shown by Registration Returns.....		49.87	51.48	47.65	3.82
Deaths, as shown by Registration Returns.....	Dec. 31, 1874.	25.33	25.78	24.09	.83
Deaths of Native-born Inhabitants, as shown by Registration Returns.....		20.26	23.50	20.25	3.74
Deaths of Foreign-born Inhabitants, as shown by Registration Returns.....		47.15	47.99	46.18	1.80
Deaths from Consumption, by Registration Returns.....		36.48	39.50	33.44	6.46
All aged 20 and over whose occupations were stated in Registration Returns of Deaths.....		50.77	52.70	48.23	4.47
All who died aged 20 years and over, as shown by Registration Returns.....		50.89	52.54	48.72	4.12
Deaths, as shown by Registration Returns.....	Dec. 31, 1875.	25.32	26.31	24.36	1.95
Deaths of Native-born Inhabitants, as shown by Registration Returns.....		20.17	20.73	19.88	.85
Deaths of Foreign-born Inhabitants, as shown by Registration Returns.....		46.90	48.68	44.49	4.19
Deaths from Consumption, by Registration Returns.....		35.77	38.19	33.58	4.61
All aged 20 and over, whose Occupations were stated in Registration Returns of Deaths.....		51.07	53.29	47.87	5.42
All who died aged 20 years and over, as shown by Registration Returns.....		50.63	52.79	48.06	4.73
Deaths of Native-born Inhabitants aged 20 years and over, as shown by Registration Returns.....	Dec. 31, 1876.	50.68	53.86	47.61	6.25
Deaths of Foreign-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		50.77	52.37	49.54	2.83
Deaths, as shown by Registration Returns.....		25.83	26.79	25.04	1.75
Deaths of Native-born Inhabitants, as shown by Registration Returns.....		20.86	21.31	20.60	.74
Deaths of Foreign-born Inhabitants, as shown by Registration Returns.....		47.33	48.91	46.68	2.23
Deaths from Consumption, by Registration Returns.....		33.70	40.20	35.40	6.80
All aged 20 and over whose occupations were stated in Registration Returns of Deaths.....	Dec. 31, 1877.	51.92	54.00	49.89	4.11
All who died aged 20 years and over, as shown by Registration Returns.....		51.94	53.91	49.88	4.03
Deaths of Native-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		51.80	54.45	49.92	2.54
Deaths of Foreign-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		52.29	53.70	51.90	1.74

## EXHIBIT Q.—CONTINUED.

	YEAR ENDING:	AVERAGE AGE IN YEARS AND HUNDRETHS OF A YEAR.			
		Total.	Males.	Fe- males.	Excess, Males.
Deaths, as shown by Registration Returns.....	Dec. 31, 1877.	25.89	26.44	25.44	1.00
Deaths of Native-born Inhabitants, as shown by Regi- stration Returns.....		20.30	20.22	20.57	-.35
Deaths of Foreign-born Inhabitants, as shown by Regi- stration Returns.....		49.31	50.31	48.00	2.31
Deaths from Consumption, by Registration Returns.....		38.34	39.42	33.94	5.48
All aged 20 and over whose occupations were stated in Registration Returns of Deaths.....		51.71	53.89	49.55	4.34
All who died aged 20 years and over, as shown by Regi- stration Returns.....		51.88	54.03	49.65	4.38
Deaths of Native-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		51.25	54.13	48.43	5.70
Deaths of Foreign-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		53.01	53.95	51.78	2.17
Deaths as shown by Registration Returns.....	Dec. 31, 1878.	26.41	26.99	25.99	1.00
Deaths of Native-born Inhabitants, as shown by Regi- stration Returns.....		20.74	21.20	21.10	.10
Deaths of Foreign-born Inhabitants, as shown by Regi- stration Returns.....		49.75	50.96	48.85	2.11
Deaths from Consumption, by Registration Returns.....		38.07	40.95	33.25	7.70
All aged 20 and over whose occupations were stated in Registration Returns of Deaths.....		52.45	54.21	50.41	3.80
All who died aged 20 years and over, as shown by Regi- stration Returns.....		52.40	54.17	50.57	3.60
Deaths of Native-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		51.01	54.20	49.57	4.63
Deaths of Foreign-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		53.84	54.88	53.15	1.73
Deaths as shown by Registration Returns.....	Dec. 31, 1879.	25.76	26.31	25.28	1.03
Deaths of Native-born Inhabitants, as shown by Regi- stration Returns.....		20.07	19.94	20.32	-.35
Deaths of Foreign-born Inhabitants, as shown by Regi- stration Returns.....		49.55	49.21	47.17	2.04
Deaths from Consumption, by Registration Returns.....		35.99	39.30	33.12	6.18
All aged 20 and over whose occupations were stated in Registration Returns of Deaths.....		52.29	54.73	49.42	5.31
All who died aged 20 years and over, as shown by Regi- stration Returns.....		52.46	54.67	50.05	4.62
Deaths of Native-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		51.24	54.19	48.43	5.76
Deaths of Foreign-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		54.23	52.76	52.86	-.10
Deaths as shown by Registration Returns.....	Dec. 31, 1880.	25.45	26.06	24.88	1.18
Deaths of Native-born Inhabitants, as shown by Regi- stration Returns.....		19.74	19.73	19.89	-.16
Deaths of Foreign-born Inhabitants, as shown by Regi- stration Returns.....		47.72	48.93	45.04	3.89
Deaths from Consumption, by Registration Returns.....		35.16	38.09	32.67	5.42
All aged 20 and over whose Occupations were stated in Registration Returns of Deaths.....		52.40	53.59	50.50	3.09
All who died aged 20 years and over, as shown by Regi- stration Returns.....		52.50	54.23	50.52	3.71
Deaths of Native born Inhabitants, aged 20 years and over, as shown by Registration Returns.....		51.54	53.84	49.20	4.64
Deaths of Foreign-born Inhabitants, aged 20 years and over, as shown by Registration Returns.....		54.13	55.05	51.60	3.45
Deaths as shown by Registration Returns.....	Dec. 31, 1881.	24.08	24.55	23.70	.85
Deaths of Native-born Inhabitants, as shown by Regi- stration Returns.....		18.86	18.74	19.14	-.40
Deaths of Foreign-born Inhabitants, as shown by Regi- stration Returns.....		45.43	46.03	44.66	1.37
Deaths from Consumption, by Registration Returns.....		35.88	37.94	33.93	3.11
All aged 20 and over whose occupations were stated in Registration Returns of Deaths.....		51.01	53.12	49.90	3.22
All who died aged 20 years and over, as shown by Regi- stration Returns.....		51.33	52.60	49.90	2.70
Deaths of Native-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		50.37	52.38	48.31	4.07
Deaths of Foreign-born Inhabitants aged 20 years and over, as shown by Registration Returns.....		52.76	52.80	52.74	.06



## OCCUPATIONS.

The relation of deaths to occupations in Michigan cannot be traced with the most satisfactory degree of accuracy. The cause of this is the fact that individuals in this country seldom continue at one occupation any considerable time. In Europe the subject is much better studied, generations often remaining at a particular occupation.

Table XXIX., however, shows some interesting facts. Among the classes, cultivators of the earth are returned as having the greatest average duration of life.

TABLE XXIX.—*Exhibiting the Number and the Aggregate and Average Ages of All Decedents in Michigan Aged 20 Years and Over, and of those whose Occupations were not Specified; also, by Classified Occupations, the Number and Aggregate and Average Ages of Decedents, Aged 20 Years and Over, whose Occupations were returned, One-half of a Year being added to Age of each Person in place of Months and Days excluded.*

CLASS.	OCCUPATIONS,—1881.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
	ALL AGED 20 YEARS AND OVER,.....	7,926	409,099.00	51.61
	ALL SPECIFIED OCCUPATIONS,—AGED 20 YEARS AND OVER.....	7,042	364,165.00	51.71
	OCCUPATIONS UNSPECIFIED,—AGED 20 YEARS AND OVER.....	884	44,934.00	50.83
I.	CULTIVATORS OF THE EARTH.....	1,879	110,358.00	58.73
II.	ACTIVE MECHANICS ABROAD.....	211	11,095.00	52.58
III.	ACTIVE MECHANICS IN SHOPS.....	237	13,620.50	57.47
IV.	INACTIVE MECHANICS IN SHOPS.....	132	6,577.50	49.83
V.	LABORERS,—NO SPECIAL TRADES.....	716	30,494.50	42.59
VI.	AGENTS, LABORERS ABROAD, ETC.....	156	7,006.50	44.91
VII.	SEAFARING MEN.....	32	1,298.00	40.56
VIII.	SOLDIERS.....	8	119.00	39.67
IX.	BUSINESS MEN.....	247	11,719.50	47.45
X.	PROFESSIONAL MEN.....	123	6,482.00	52.70
XI.	UNEMPLOYED.....	124	7,149.00	60.07
XII.	FEMALES.....	3,701	184,672.50	49.90
I.	CULTIVATORS OF THE EARTH.....	1,879	110,358.00	58.73
	Farmers.....	1,849	108,832.00	58.86
	Farm Laborers.....	8	240.00	30.00
	Farmers' Sons.....	3	68.00	22.67
	Fruit-growers.....	1	69.50	69.50
	Gardeners.....	17	1,075.00	63.24
	Retired Farmers.....	1	73.50	73.50

TABLE XXIX.—CONTINUED.—*Occupations of Decedents in 1881.*

CLASS.	OCCUPATIONS,—1881.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
II.	ACTIVE MECHANICS ABROAD.....	211	11,085.00	52.58
	Brick-layers.....	2	105.00	52.50
	Carpenters.....	135	7,434.00	55.07
	Joiners.....	3	151.00	50.33
	Masons.....	21	1,141.00	54.33
	Painters.....	38	1,647.00	43.34
	Ship-carpenters.....	5	206.00	41.20
	Stone-masons.....	7	411.00	58.71
III.	ACTIVE MECHANICS IN SHOPS.....	237	13,620.50	57.47
	Bakers.....	6	251.00	41.83
	Basket-makers.....	1	100.50	100.50
	Blacksmiths.....	48	2,550.00	53.75
	Boiler-makers.....	4	133.00	33.25
	Brewers.....	7	326.00	46.57
	Brick-makers.....	2	119.00	59.50
	Broom-makers.....	1	50.50	50.50
	Cabinet-makers.....	9	406.00	45.00
	Carriage-makers.....	1	67.50	67.50
	Carvers.....	1	26.50	26.50
	Chair-makers.....	1	51.50	51.50
	Confectioners.....	3	84.00	28.00
	Cooks.....	4	209.00	52.25
	Coopers.....	21	1,213.00	57.76
	Coppersmiths.....	1	91.50	91.50
	Dyers.....	1	74.50	74.50
	Engineers.....	21	968.00	46.10
	Feather Renovators.....	1	21.50	21.50
	Finishers.....	2	68.00	34.00
	Foundrymen.....	1	28.50	28.50
	Gunsmiths.....	2	142.00	71.00
	Hoop-makers.....	1	28.50	28.50
	Machinists.....	16	713.00	47.53
	Marble-polishers.....	1	71.50	71.50
	Mechanics.....	27	1,527.00	56.56
	Millers.....	17	927.00	54.53
	Millwrights.....	2	138.00	69.00
	Molders.....	11	410.00	37.27



TABLE XXIX.—CONTINUED.—*Occupations of Decedents in 1881.*

CLASS.	OCCUPATIONS,—1881.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
III.	ACTIVE MECHANICS IN SHOPS.—(Continued.)			
	Pattern-makers.....	3	179.00	59.67
	Plasterers.....	5	225.00	45.00
	Plumbers.....	1	24.50	24.50
	Powder-makers.....	10	258.00	25.80
	Saw-makers.....	1	70.50	70.50
	Sawyers.....	7	253.00	36.14
	Shingle-sawyers.....	1	32.50	32.50
	Show-case Makers.....	1	37.50	37.50
	Soap-makers.....	2	54.00	27.00
	Stone-cutters.....	4	165.00	41.25
	Stove-mounters.....	1	61.50	61.50
	Tanners.....	1	90.50	90.50
	Tinsmiths.....	9	325.00	36.11
	Umbrella-makers.....	1	62.50	62.50
	Upholsterers.....	3	97.00	32.33
	Wagon makers.....	10	500.00	50.00
	Weavers.....	2	153.00	76.50
	Wheelwrights.....	1	86.50	86.50
	Whitewashers.....	1	78.50	78.50
	Wood-turners.....	1	41.50	41.50
IV.	INACTIVE MECHANICS IN SHOPS.....	132	6,577.50	49.83
	Barbers.....	17	692.00	40.12
	Bookbinders.....	1	58.50	58.50
	Cigar-makers.....	18	410.00	31.54
	Cobblers.....	2	148.00	74.00
	Glass.platers.....	1	53.50	53.50
	Harness-makers.....	11	519.00	47.18
	Jewelers.....	7	223.00	31.86
	Lithographers.....	1	22.50	22.50
	Printers.....	10	371.00	37.10
	Saddlers.....	1	94.50	94.50
	Shoe-makers.....	42	2,604.00	62.00
	Silver-gilders.....	1	24.50	24.50
	Tailors.....	23	1,322.00	57.48
	Telegraph Operators.....	2	43.00	22.50

TABLE XXIX.—CONTINUED.—*Occupations of Decedents in 1881.*

AGE.	OCCUPATIONS,—1881.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
V.	LABORERS—NO SPECIAL TRADES.....	716	30,494.50	42.59
	Bridge Tenders.....	1	52.50	52.50
	Choppers.....	2	81.00	40.50
	Coal Miners.....	1	39.50	39.50
	Firemen.....	6	234.00	39.00
	Janitors.....	1	58.50	58.50
	Laborers.....	617	26,713.00	43.29
	Log-drivers.....	1	24.50	24.50
	Log-cutters.....	2	52.00	26.00
	Loggers.....	5	167.00	33.40
	Log-scalers.....	1	32.50	32.50
	Millmen.....	1	27.50	27.50
	Miners.....	65	2,562.00	39.42
	Miscellaneous.....	1	40.50	40.50
	Millers in Flour Mills.....	1	35.50	35.50
	Porters.....	2	68.00	34.00
	Rivermen.....	1	26.50	26.50
	Saw-filers.....	1	54.50	54.50
	Servants.....	2	70.00	35.00
	Walters.....	2	74.00	37.00
	Well-hands.....	1	22.50	22.50
	Woodsmen.....	2	59.00	29.50
VI.	AGENTS, LABORERS ABROAD, ETC.,.....	156	7,006.50	44.91
	Agents.....	2	100.00	50.00
	Baggage-masters.....	1	29.50	29.50
	Bar-tenders.....	4	109.00	27.25
	Brakemen.....	7	170.00	24.29
	Butchers.....	17	817.00	48.06
	Commercial Travelers.....	4	181.00	45.25
	Conductors.....	5	158.00	31.60
	Deputy Sheriffs.....	4	191.00	47.75
	Draymen.....	5	276.00	55.20
	Drovers.....	4	231.00	57.50
	Farriers.....	2	126.00	63.00
	Foremen in Mills.....	1	41.50	41.50
	Hackmen.....	1	42.50	42.50
	Horse Trainers.....	1	52.50	52.50

TABLE XXIX.—CONTINUED.—*Occupations of Decedents in 1881.*

CLASS.	OCCUPATIONS,—1881	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
VI.	AGENTS, LABORERS ABROAD, ETC.—(Continued.)			
	Hostlers.....	1	55.50	55.50
	Hunters.....	3	182.00	60.67
	Liverymen.....	2	53.00	26.50
	Lumbermen.....	36	1,681.00	46.69
	Mail-carriers.....	1	50.50	50.50
	Milk-peddlers.....	2	138.00	69.00
	Night-watchmen.....	1	20.50	20.50
	Peddlers.....	10	447.00	44.70
	R. R. Agents.....	1	58.50	58.50
	R. R. Conductors.....	1	29.50	29.50
	R. R. Employees.....	7	296.00	42.14
	R. R. Laborers.....	2	46.00	23.00
	Railroaders.....	5	216.00	43.20
	Section Foremen.....	1	68.50	68.50
	Station Agents.....	1	29.50	29.50
	Switchmen.....	4	93.00	23.25
	Tallymen.....	1	33.50	33.50
	Teamsters.....	14	714.00	51.00
	Ticket Inspectors.....	1	48.50	48.50
	Time-keepers.....	1	60.50	60.50
	Toll-gate Keepers.....	1	74.50	74.50
	Turners.....	1	40.50	40.50
	Watchmen.....	1	43.50	43.50
VII.	SEAFARING MEN.....	32	1,296.00	40.50
	Boatmen.....	1	45.50	45.50
	Captains.....	1	69.50	69.50
	Deck Hands.....	1	35.50	35.50
	Fishermen.....	4	226.00	56.50
	Sailors.....	24	878.00	36.58
	Steamboat Captains.....	1	43.50	43.50
VIII.	SOLDIERS.....	3	119.00	39.67
IX.	BUSINESS MEN.....	247	11,719.50	47.45
	Accountants.....	1	29.50	29.50
	Bankers.....	8	518.00	64.75
	Bank Tellers.....	1	23.50	23.50

TABLE XXIX.—CONTINUED.—*Occupations of Decedents in 1881.*

CLASS.	OCCUPATIONS,—1881.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
IX.	BUSINESS MEN—(Continued.)			
	Boarding-house Keepers.....	1	51.50	51.50
	Book-keepers.....	14	518.00	37.00
	Builders.....	6	351.00	70.20
	Capitalists.....	1	52.50	52.50
	Caring for Property.....	1	64.50	64.50
	Cigar Manufacturers.....	2	101.00	50.50
	Civil Officers.....	1	34.50	34.50
	Clerks.....	35	1,202.00	34.34
	Clothiers.....	2	178.00	89.00
	Collectors.....	1	66.50	66.50
	Commission Merchants.....	1	57.50	57.50
	Contractors....	1	59.50	59.50
	Custom-house Officers.....	1	71.50	71.50
	Dealers in Second-hand Goods.....	1	41.50	41.50
	Deputy County Clerks.....	1	49.50	49.50
	Drapers.....	1	87.50	87.50
	Druggists.....	9	338.00	37.55
	Ex-County Treasurers.....	1	47.50	47.50
	Expressmen.....	2	87.00	43.50
	Furniture Dealers.....	1	21.50	21.50
	Grocers.....	19	848.00	44.63
	Hotel-keepers.....	18	898.00	49.89
	Insurance Agents.....	1	56.50	56.50
	Jobbers....	1	33.50	33.50
	Justices of the Peace.....	2	185.00	67.50
	Lime Manufacturers.....	1	52.50	52.50
	Liquor Dealers.....	2	74.00	37.00
	Lumber Inspectors.....	2	71.00	35.50
	Manufacturers.....	4	244.00	61.00
	Merchants.....	57	3,029.00	53.14
	Mine Agents.....	1	70.50	70.50
	Notion Store.....	2	93.00	46.50
	Photographers.....	2	68.00	34.00
	Postmasters.....	1	29.50	29.50
	Produce Shippers.....	1	38.50	38.50
	Real Estate Dealers.....	5	319.00	63.80
	Recorders of Deeds.....	1	33.50	33.50

TABLE XXIX.—CONTINUED.—*Occupations of Decedents in 1881.*

CLASS.	OCCUPATIONS,—1881.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
IX.	BUSINESS MEN—(Continued.)			
	Retired Merchants.....	1	72.50	72.50
	Restaurant-keepers.....	3	143.00	47.67
	Salesmen.....	3	103.00	34.33
	Saloon-keepers.....	15	649.00	43.27
	Sash and Blind Manufacturers.....	1	25.50	25.50
	Secretaries.....	1	45.50	45.50
	Shingle Manufacturers.....	3	111.00	37.00
	Speculators.....	1	41.50	41.50
	State Officers.....	1	45.50	45.50
	Superintendents of Mines.....	1	35.50	35.50
	U. S. Marshals.....	1	62.50	62.50
	Water Cures.....	1	63.50	63.50
	Wool Buyers.....	1	80.50	80.50
	Woolen Manufacturers.....	2	98.00	49.00
X.	PROFESSIONAL MEN.....	123	6,482.00	52.70
	Actors.....	1	77.50	77.50
	Architects.....	1	62.50	62.50
	Artists.....	4	166.00	41.50
	Civil Engineers.....	1	41.50	41.50
	Dentists.....	1	65.50	65.50
	Editors.....	2	101.00	50.50
	Lawyers.....	20	1,091.00	54.55
	Ministers.....	22	1,316.00	59.82
	Musicians.....	3	133.00	44.33
	Music Teachers.....	3	145.00	48.33
	Physicians.....	31	1,752.00	56.52
	Priests.....	1	95.50	95.50
	Professors.....	1	78.50	78.50
	Reporters.....	1	22.50	22.50
	Retired Physicians.....	1	71.50	71.50
	Students.....	5	116.00	23.20
	Surgeons.....	1	54.50	54.50
	Surveyors.....	1	73.50	73.50
	Teachers.....	19	771.00	40.58
	Veterinary Surgeons.....	4	248.00	62.00



TABLE XXIX.—CONTINUED.—*Occupations of Decedents in 1881.*

CLASS.	OCCUPATIONS,—1881.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
<b>XI.</b>	<b>UNEMPLOYED</b> .....	124	7,449.00	60.07
	Paupers.....	8	507.00	63.38
	Pensioners.....	1	63.50	63.50
	Retired.....	10	716.00	71.60
	Tramps.....	1	46.50	46.50
	Unemployed.....	104	6,116.00	58.81
	Unknown.....	365	18,207.00	49.88
<b>XII.</b>	<b>FEMALES</b> .....	3,701	184,672.50	49.90
	Artists.....	1	84.50	84.50
	"At Home".....	1	20.50	20.50
	Bankers.....	1	51.50	51.50
	Basket-weavers.....	1	42.50	42.50
	Boarding.....	1	77.50	77.50
	Boarding-house Keepers.....	3	134.00	44.67
	"Cabinet".....	1	51.50	51.50
	Carpenters.....	2	91.00	45.50
	Carpet Weavers.....	1	46.50	46.50
	Cigar-makers.....	1	31.50	31.50
	Clerks.....	1	33.50	33.50
	Conductors' Wives.....	1	36.50	36.50
	Cooks.....	7	329.00	47.00
	Coopers.....	1	75.50	75.50
	Domestics.....	40	1,512.00	37.80
	Dress-makers.....	29	1,043.00	35.97
	Factory-girls.....	1	26.50	26.50
	Farmers.....	184	10,493.00	57.03
	Farmers' Daughters.....	8	215.00	26.88
	Farmers' Wives.....	160	8,232.00	51.45
	Fishermen's Wives.....	1	42.50	42.50
	Fruit Growers' Wives.....	1	50.50	50.50
	Hair-dressers.....	1	29.50	29.50
	Housekeepers.....	835	43,378.00	51.95
	Housewives.....	1,270	60,893.00	47.95
	.....	103	4,821.00	46.81
	.....	3	137.00	45.67
	"yes".....	1	46.50	46.50
	.....	20	1,015.00	50.75

TABLE XXIX.—CONTINUED.—*Occupations of Decedents in 1881.*

CLASS.	OCCUPATIONS,—1881.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
<b>XII.</b>	<b>FEMALES—(Continued.)</b>			
	Laborers' Daughters.....	1	23.50	23.50
	Laborers' Wives.....	13	571.00	47.58
	Landladies.....	1	36.50	36.50
	Lawyers' Wives.....	1	65.50	65.50
	Life Insurance Agents.....	1	47.50	47.50
	Masons.....	1	79.50	79.50
	Matrons.....	14	729.00	52.07
	Mechanics' Wives.....	2	56.00	28.00
	Merchants.....	3	154.00	51.33
	Merchants' Daughters.....	1	20.50	20.50
	Merchants' Wives.....	3	171.00	57.00
	Millers.....	1	59.50	59.50
	Millers' Wives.....	1	33.50	33.50
	Milliners.....	16	504.00	31.50
	Miners.....	1	35.50	35.50
	Music Teachers.....	1	20.50	20.50
	Nurses.....	6	295.00	49.17
	Paupers.....	7	244.00	34.86
	Physicians.....	1	74.50	74.50
	Retired.....	3	235.00	78.33
	Sailors' Daughters.....	1	26.50	26.50
	Seamstresses.....	13	692.00	53.23
	Students.....	3	71.00	23.67
	Servants.....	37	1,074.00	29.03
	Shoe-makers' Wives.....	1	80.50	80.50
	Tailloresses.....	13	731.00	60.92
	Teachers.....	37	1,073.00	29.00
	Telegraph Operators.....	2	46.00	23.00
	Unemployed.....	258	14,727.00	57.08
	Unknown.....	519	26,727.00	51.50
	Washer-women.....	3	174.00	58.00
	Weavers.....	7	463.00	66.14
	Weavers' Wives.....	1	31.50	31.50
	Widows.....	1	56.50	56.50
	Wives.....	49	2,204.00	44.98

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## OCCUPATIONS.

The relation of deaths to occupations in Michigan cannot be traced with the most satisfactory degree of accuracy. The cause of this is the fact that individuals in this country seldom continue at one occupation any considerable time. In Europe the subject is much better studied, generations often remaining at a particular occupation.

Table XXIX., however, shows some interesting facts. Among the classes, cultivators of the earth are returned as having the greatest average duration of life.

TABLE XXIX.—*Exhibiting the Number and the Aggregate and Average Ages of All Decedents in Michigan Aged 20 Years and Over, and of those whose Occupations were not Specified; also, by Classified Occupations, the Number and Aggregate and Average Ages of Decedents, Aged 20 Years and Over, whose Occupations were returned, One-half of a Year being added to Age of each Person in place of Months and Days excluded.*

CLASS.	OCCUPATIONS,—1881.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
	ALL AGED 20 YEARS AND OVER,.....	7,926	409,080.00	51.61
	ALL SPECIFIED OCCUPATIONS,—AGED 20 YEARS AND OVER.	7,042	364,165.00	51.71
	OCCUPATIONS UNSPECIFIED,—AGED 20 YEARS AND OVER...	884	44,934.00	50.83
I.	CULTIVATORS OF THE EARTH.....	1,879	110,358.00	58.73
II.	ACTIVE MECHANICS ABROAD.....	211	11,093.00	52.58
III.	ACTIVE MECHANICS IN SHOPS.....	237	13,620.50	57.47
IV.	INACTIVE MECHANICS IN SHOPS.....	132	6,577.50	49.83
V.	LABORERS,—NO SPECIAL TRADES.....	716	30,494.50	42.59
VI.	AGENTS, LABORERS ABROAD, ETC.....	156	7,006.50	44.91
VII.	SEAFARING MEN.....	32	1,292.00	40.56
VIII.	SOLDIERS.....	8	119.00	39.67
IX.	BUSINESS MEN.....	247	11,719.50	47.45
X.	PROFESSIONAL MEN.....	123	6,482.00	52.70
XI.	UNEMPLOYED.....	124	7,449.00	60.07
XII.	FEMALES.....	3,701	184,672.50	49.90
I.	CULTIVATORS OF THE EARTH.....	1,879	110,358.00	58.73
	Farmers.....	1,849	108,832.00	58.86
	Farm Laborers.....	8	240.00	30.00
	Farmers' Sons.....	3	63.00	22.67
	Fruit-growers.....	1	69.50	69.50
	Gardeners.....	17	1,075.00	63.24
	Retired Farmers.....	1	73.50	73.50

TABLE XXIX.—CONTINUED.—*Occupations of Decedents in 1881.*

CLASS.	OCCUPATIONS,—1881.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
II.	ACTIVE MECHANICS ABROAD.....	211	11,093.00	52.56
	Brick-layers.....	2	105.00	52.50
	Carpenters.....	135	7,434.00	55.07
	Joiners.....	3	151.00	50.33
	Masons.....	21	1,141.00	54.33
	Painters.....	38	1,647.00	43.34
	Ship-carpenters.....	5	206.00	41.20
	Stone-masons.....	7	411.00	58.71
III.	ACTIVE MECHANICS IN SHOPS.....	237	13,620.50	57.47
	Bakers.....	6	251.00	41.83
	Basket-makers.....	1	100.50	100.50
	Blacksmiths.....	48	2,590.00	53.75
	Boller-makers.....	4	133.00	33.25
	Brewers.....	7	326.00	46.57
	Brick-makers.....	2	119.00	59.50
	Broom-makers.....	1	50.50	50.50
	Cabinet-makers.....	9	405.00	45.00
	Carriage-makers.....	1	67.50	67.50
	Carvers.....	1	26.50	26.50
	Chair-makers.....	1	51.50	51.50
	Confectioners.....	3	84.00	28.00
	Cooks.....	4	209.00	52.25
	Coopers.....	21	1,213.00	57.76
	Coppersmiths.....	1	91.50	91.50
	Dyers.....	1	74.50	74.50
	Engineers.....	21	968.00	46.10
	Feather Renovators.....	1	21.50	21.50
	Finishers.....	2	63.00	31.00
	Foundrymen.....	1	23.50	23.50
	Gunsmiths.....	2	142.00	71.00
	Hoop-makers.....	1	23.50	23.50
	Machinists.....	15	713.00	47.53
	Marble-polishers.....	1	71.50	71.50
	Mechanics.....	27	1,527.00	56.56
	Millers.....	17	927.00	54.53
	Millwrights.....	2	138.00	69.00
	Molders.....	11	410.00	37.27



TABLE XXIX.—CONTINUED.—*Occupations of Decedents in 1881.*

CLASS.	OCCUPATIONS,—1881.	Number of Persons.	AGE IN YEARS AND 100ths.	
			Aggregate.	Average.
III.	ACTIVE MECHANICS IN SHOPS.—(Continued.)			
	Pattern-makers.....	3	179.00	59.67
	Plasterers.....	5	225.00	45.00
	Plumbers.....	1	24.50	24.50
	Powder-makers.....	10	258.00	25.80
	Saw-makers.....	1	70.50	70.50
	Sawyers.....	7	253.00	36.14
	Shingle-sawyers.....	1	32.50	32.50
	Show-case Makers.....	1	37.50	37.50
	Soap-makers.....	2	54.00	27.00
	Stone-cutters.....	4	165.00	41.25
	Stove-mounters.....	1	61.50	61.50
	Tanners.....	1	90.50	90.50
	Tinsmiths.....	9	325.00	36.11
	Umbrella-makers.....	1	62.50	62.50
	Upholsterers.....	3	97.00	32.33
	Wagon makers.....	10	500.00	50.00
	Weavers.....	2	153.00	76.50
	Wheelwrights.....	1	86.50	86.50
	Whitewashers.....	1	78.50	78.50
	Wood-turners.....	1	41.50	41.50
IV.	INACTIVE MECHANICS IN SHOPS.....	132	6,577.50	49.83
	Barbers.....	17	632.00	40.12
	Bookbinders.....	1	58.50	58.50
	Cigar-makers.....	13	410.00	31.54
	Cobblers.....	2	148.00	74.00
	Glass-platers.....	1	53.50	53.50
	Harness-makers.....	11	519.00	47.18
	Jewelers.....	7	223.00	31.86
	Lithographers.....	1	22.50	22.50
	Printers.....	10	371.00	37.10
	Saddlers.....	1	94.50	94.50
	Shoe-makers.....	42	2,604.00	62.00
	Silver-gilders.....	1	24.50	24.50
	Tailors.....	23	1,322.00	57.48
	Telegraph Operators.....	2	43.00	22.50

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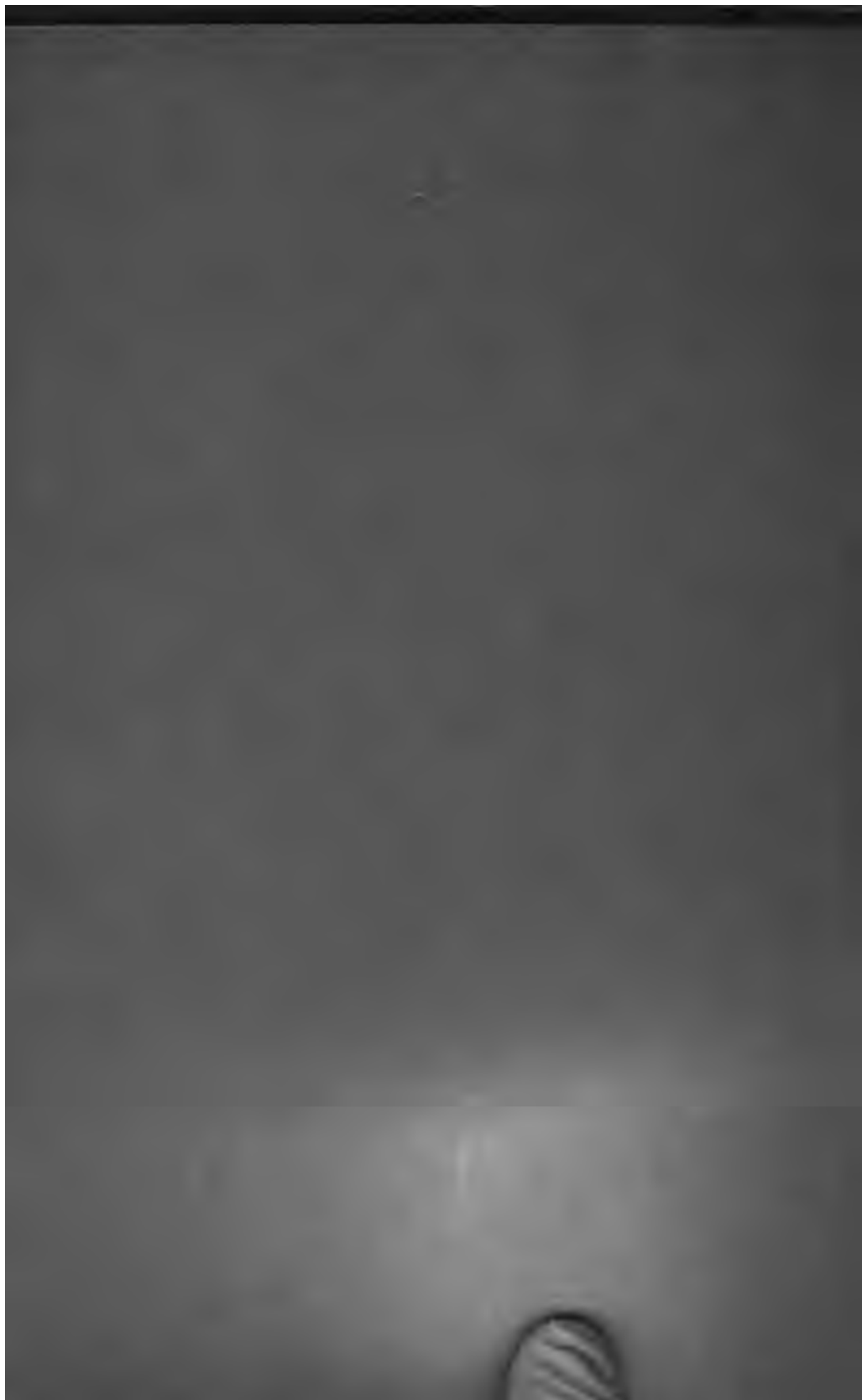
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